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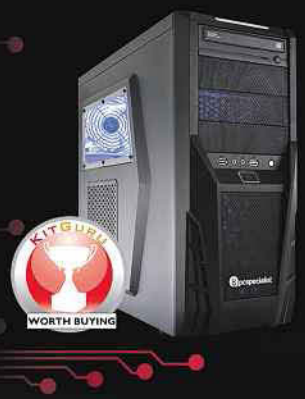

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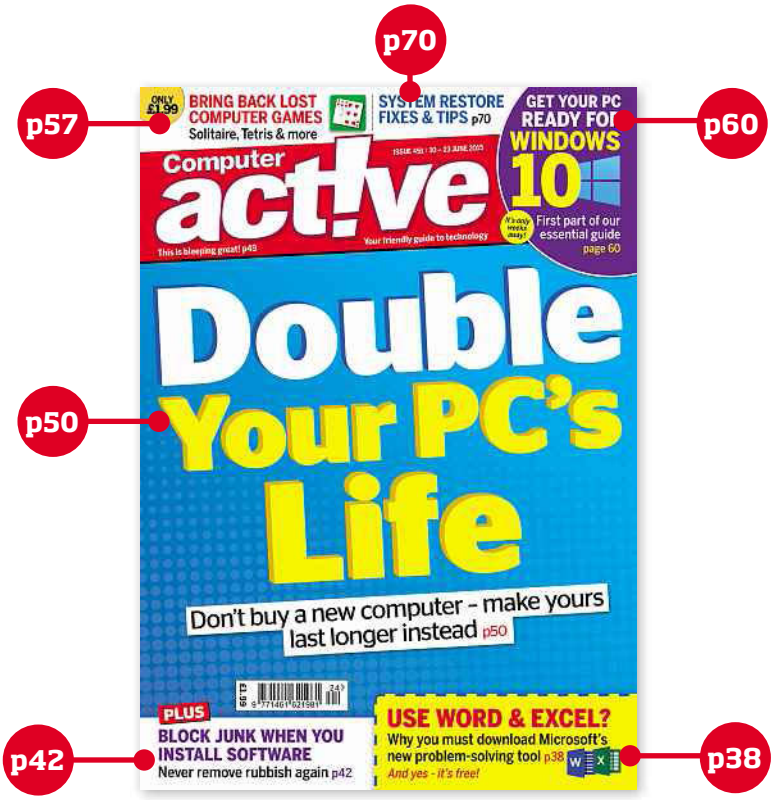
From the Editor

Prolonging your PC's life is an obsession of ours. We make no apologies for that. It would be great if money was no object, and we could all treat ourselves to a shiny new computer every couple of months (and pay someone to set it up for us). But money has an annoying habit of always being an object. That's why we'll never stop looking for new ways to help you get the maximum value from your computer. If we can add a few more years to your PC's life, that's a few more years you won't have to find £500 (and more) to buy a replacement.

That's our aim in this issue's Cover Feature (page 50). We dig deep into Windows to find tools that help you maintain your PC's health; we recommend free programs that spot problems early; and we reveal the best affordable hardware upgrades. PC manufacturers may not like us for saying so, but we think doubling your PC's life really is possible.

Daniel Booth
editor@computeractive.co.uk



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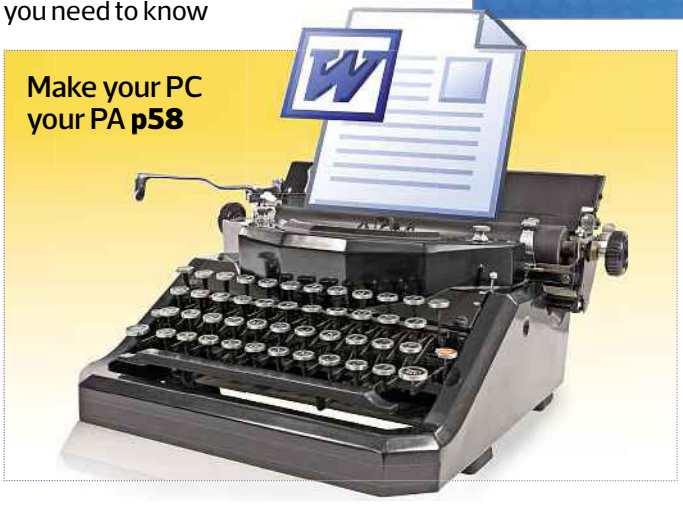
Don't buy a new computer - make yours last longer instead p50



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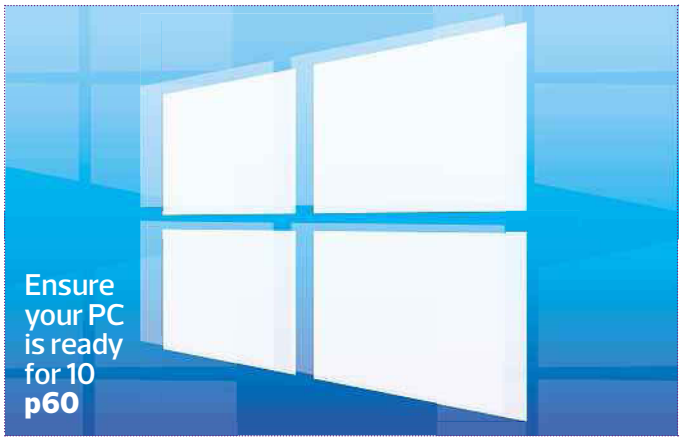

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Computer active BUY IT! ★★★★★

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Computer active BUY IT! ★★★★★

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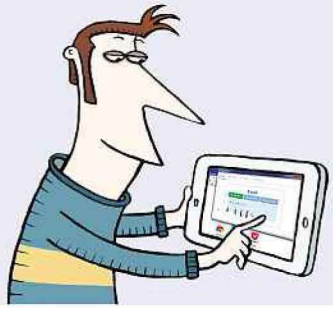

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Computeractive offer of the fortnight

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News

The top stories in the world of technology

Save the date: Windows 10 to launch on 29 July

Microsoft has announced that Windows 10 will be launched on 29 July, confirming months of speculation that it would arrive in the summer.

The company revealed the date in a blog post (www.snipca.com/16778) on 1 June. Terry Myerson, Microsoft's Executive Vice President of Operating Systems, wrote: "Through the feedback and testing of over four million Windows Insiders, we've made great progress on Windows 10 and we're nearly ready to deliver this free upgrade to all of our Windows customers".

For the first 12 months after release Windows 10 will be a free download for anyone using Windows 7 and 8/8.1. Microsoft hasn't said how much it will cost after that, or what XP and Vista users will have to pay, although Newegg, a US-based online PC retailer, may have accidentally revealed the priced in a leaked web page (see it at www.snipca.com/16782). It showed the Home version costing $109.99 (about £72), and the Professional version $149.99 (about £98). Both prices are $10 higher than Windows 8 cost at launch.

'RESERVE' YOUR FREE COPY

Myerson explained in the blog post how you can "reserve" your free copy. Windows 7 and 8.8/1 users will see a new Windows logo icon in the bottom right of their Taskbar (see what it looks like at www.snipca.com/16790). Clicking it brings up a slideshow displaying Windows 10's new features, before asking for your email address. Enter this to reserve your copy of the operating system, though it's not clear whether you need to do this in order to receive Windows 10.

He also tried to allay fears that Microsoft will charge people fees to use Windows 10 after the 12-month free period expires. He said that all updates, including security fixes, will be free for the "supported lifetime of your device". There is still confusion about what "supported lifetime" means, however. Some analysts have accused Microsoft of being deliberately vague about the details.

WHAT'S NEW IN WINDOWS 10

Edge browser: This is replacing Internet Explorer as the default browser in Windows. It has a simpler design than IE, and lets you draw on web pages using your mouse cursor.

Cortana: Microsoft's voice-controlled personal assistant makes its Desktop debut in Windows 10.

Start menu: The Start menu, much missed in Windows 8, returns in Windows 10. As in versions up to Windows 7, it will show all your programs (see image above).

Windows Hello: Biometrics comes to Windows, allowing you to sign in with your face, eyes and fingerprint.

COMMENT

While it's good to have a release date we can scribble in our diaries, more interesting is the leak of the price. If correct, it's reassuring to know that XP and Vista users won't have to pay a fortune to upgrade (though we think they should also get it for free – are you listening, Microsoft?). It's also significant that Microsoft is trying hard to convince people that Windows 10 really will be free, with no catches. Clarifying what "supported lifetime" means would help.

☺ ***You'll like this...*** Spotify has added podcasts and videos to its streaming catalogue (www.snipca.com/16747)

☹ ***...but not this*** A defector from North Korea says its hackers 'could kill' people in the West (www.snipca.com/16748)

Identity theft rockets as criminals buy more personal info online

More people than ever are falling victim to identity theft in the UK, with the rise being partly attributed to criminals increasingly using online forums to buy stolen personal information.

In its 'UK fraud trends' report (www.snipca.com/16683), fraud-prevention agency Cifas said the number of victims of identity theft in the first three months of 2015 rose by 31 per cent to 32,058 compared with the same period in 2014. In total, identity theft accounts for 41 per cent of all cases of reported fraud.

Criminals buy personal information such as passport details, credit cards and email addresses in order to open bank accounts, buy items online and commit fraud in other people's names.

More than 80 per cent of identity theft in early 2015 was attempted or committed online, Cifas said. Men are 1.7 times more likely than women to have their identity stolen, with 46 being the average age across both sexes. Experts believe that more than a quarter of people in the UK have been the victim of identity theft at some point.

Simon Dukes, Cifas' chief executive, warned that identity fraud is being perpetrated by "increasingly sophisticated, predatory and organised criminals".

Cifas made several recommendations in its report, including greater research into how criminal gangs commit fraud, and ensuring that such crimes are "punished appropriately" to encourage the public to report them.

It also urged the public to be "savvier to frauds", saying that current trends suggest that some people let criminals use their accounts "without a full understanding of the seriousness of the crime".

To help boost public awareness of fraud, the police and high-street banks are running the 'Know Fraud, No Fraud' campaign (www.snipca.com/16684), which includes advice on how to stay safe.

Govt closes child sexual abuse loophole

The Government wants to close a legal loophole that currently gives people streaming live videos of child abuse lighter sentences than those found guilty of making recordings.

Until now, some offenders received lesser sentences if it couldn't be proved that the video they were streaming had also been recorded.

In one such case in 2013, William Hanna, a teacher working in Birmingham, was arrested after streaming sexual abuse involving a 15-year-old girl, and subsequently found guilty of sexual activity with a child.

His seven-year sentence may have been longer had the authorities proved the abuse had been recorded, as well as broadcast live.

The new proposals, outlined in the Queen's Speech at the end of May, will mean that people who broadcast abuse would face the maximum sentence of 14 years in prison. The loophole exists only in the legal system used in England and Wales.

The plans were part of the first all-Conservative Queen's Speech since 1996. They also included new powers to give police and intelligence agents the ability to intercept the online communications of terrorist suspects. As part of the Investigatory Powers Bill, security authorities will be able to "address gaps" in the gathering of intelligence that, according to the Government, put lives at risk.

But opponents of the bill see it as the return of the so-called Snooper's Charter, first proposed in 2012. The Home Office wanted internet and phone companies to keep for 12 months details of who people call and text, and when they post messages on social networks.

It was abandoned following pressure from the Liberal Democrats.

IN BRIEF

PERISCOPE ARRIVES AS ANDROID APP

An Android version of the free live-streaming app Periscope has now launched, two months after it was released for the iPhone. The app, which is owned by Twitter, lets you record and stream live videos over the internet using your phone, and watch videos other people are streaming (see 'What's All the Fuss About?', Issue 450). It is available from the Google Play store at www.snipca.com/16679

365-GIGAPIXEL PHOTO SETS NEW RECORD

A stunning 365-gigapixel panorama of Mont Blanc has set a new record for the world's largest photograph. It comprises around 70,000 shots, which were taken continuously over a 35-hour period. Two months were then spent stitching the 46 terabytes of data into a panorama. You can zoom into the photo at www.in2white.com. The previous record holder, a view of London from the BT Tower, remains online at http://btlondon2012.co.uk/pano.html.

Tomorrow's world

The prospect of driverless cars could move closer this summer when Google tests its own robot car on public roads for the first time – outside Google's HQ in Mountain View, California. It will carry a safety driver who will act if needed. Previous public tests have involved modified Lexus SUVs. You can read more and watch it in action on Google's Official Blog: www.snipca.com/16571.

IN BRIEF

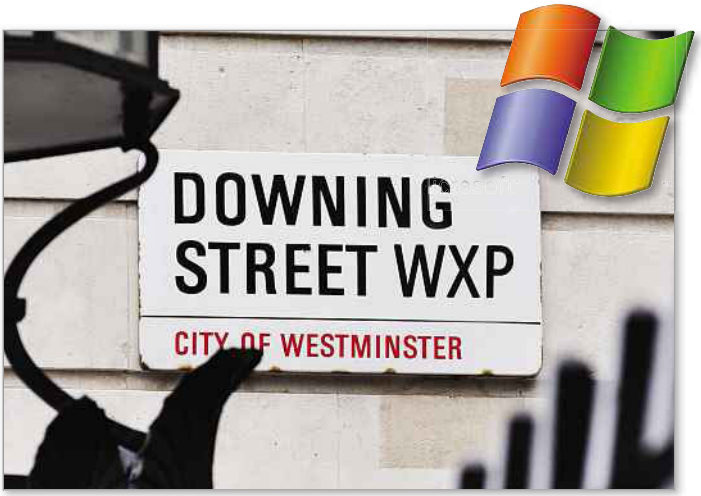
NEW BROWSER BLOCKS ADS ON ANDROID

Adblock Plus has released a browser for Android phones and tablets that blocks most adverts. Currently in beta, 'AdBlock Plus for Android' is the only Android browser that blocks adverts by default, its developers say. Blocking adverts should make web pages load faster and boost your device's battery life. To use the browser follow the instructions on Adblock Plus's Google+ page: www.snipca.com/16659

TESCO LAUNCHES 18-MONTH SIM-ONLY DEALS

Tesco Mobile (www.tescomobile.com) has become the first UK network to offer SIM-only contracts for 18 months. There are two deals available, both offering 4G. The cheapest costs £10 a month for 1,000 minutes of calls, 5,000 texts and 1GB of data. Alternatively, you can pay £12 a month for 1,500 minutes, 5,000 texts and 2GB of data. They come with Tesco's Anytime Upgrade agreement, which lets you upgrade without any fees.

Government finally bins XP – but NHS and Met Police stick with it



The UK Government has announced that it has ended an agreement with Microsoft in which it paid the company to provide extended security support for Windows XP.

However, a number of public organisations remain stuck on XP, putting them at greater risk of attack from cyber-criminals. These include the Metropolitan Police, the NHS and HMRC, whose systems contain personal information that could be valuable to hackers.

When Microsoft axed support for XP in April 2014, it provided Custom Support Agreements (CSA) for organisations that wanted to continue using the operating system, while they prepared to upgrade to more recent – and safer – versions of Windows.

The Government paid Microsoft £5.5 million for a one-year CSA. That deal, which expired in April, won't be renewed, as revealed by the Government on its Technology blog (www.snipca.com/ 16662).

In the blog post, the Government says it expects public bodies that are still using XP to "mitigate any risks" using guidance from the CESG – a group within GCHQ that advises the Government on how to keep its technology and communications safe. This guidance contains advice on how to safely use obsolete "platforms" such as XP.

Organisations such as the Metropolitan Police will need to follow this advice. It still uses 35,000 computers that run XP (see News, Issue 449), having added Windows 8.1 to only 1,000 devices.

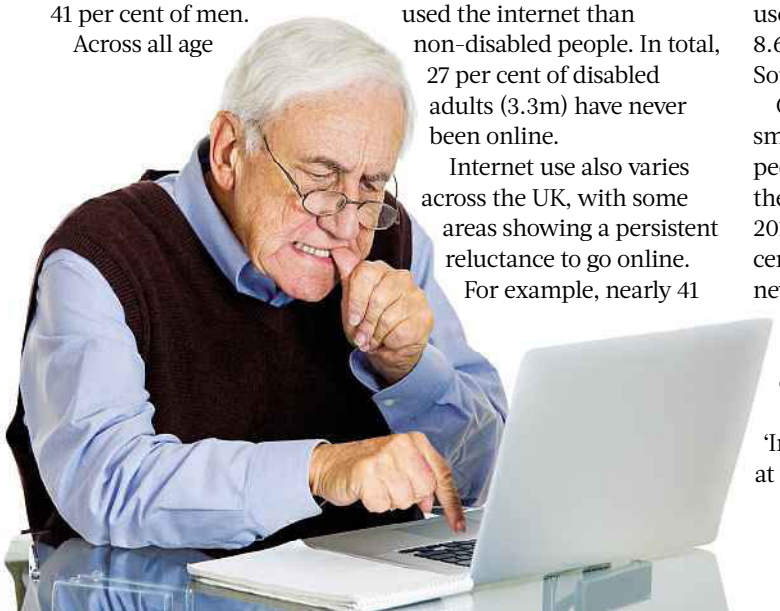
The NHS will come under similar pressure to upgrade. NHS Scotland says it has 2,600 computers running XP, while NHS England says it doesn't keep records of how many devices still run the operating system – though it's believed to be a significant number. HMRC is running "slightly behind" schedule in its plan to move its 80,000 XP machines on to Windows 7 and 8.1.

For updates on how the Government uses technology, sign up to email alerts from its blog: www.snipca.com/16666.

Over-75s and the disabled less likely to use the web

New figures from the Office of National Statistics have highlighted the stark differences in the number of people using the internet across age groups. According to the research, only 33 per cent of people aged 75 and over use the web, compared with 99 per cent of people aged 18-24.

There are also significant gender differences, with internet usage by women continuing to be lower than men. This is particularly true in older age groups, with only 27.3 per cent of women over 75 having ever been online, compared with 41 per cent of men.



Across all age groups disabled people are much less likely to have used the internet than non-disabled people. In total, 27 per cent of disabled adults (3.3m) have never been online.

Internet use also varies across the UK, with some areas showing a persistent reluctance to go online.

For example, nearly 41 per cent of people on the island of Anglesey had never used the web, compared with 8.6 per cent of people in the South East.

Overall, the figures show a small rise in the number of people using the internet in the UK. In the first quarter of 2014, 6.4m people (12.6 per cent of the population) had never used the web. This had fallen to 5.9m (11.4 per cent) by the first quarter of 2015.

You can read the ONS' 'Internet Users, 2015' report at www.snipca.com/16656.

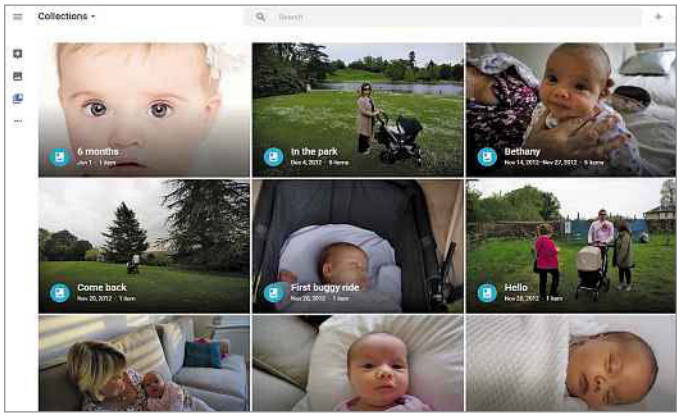
Google offers unlimited photo and video storage – for free

Google has launched a service, available online and as an app, that lets you store unlimited photos and videos for free. The only catch is that photos can't be larger than 16 megapixels, and videos are limited to 1080p.

Called Google Photos, it brings together different elements of the company's photo-storage services, such as Picasa and Google+, which have been heavily criticised for being too fragmented.

It automatically backs up photos from your phone and tablet. You can also upload photos from a memory card and synchronise them with Google Drive.

Google wants the new service to offer a better way of organising your photos and videos. In a blog post announcing the launch (www.snipca.com/16723), Google said it wants to give users "a single, private place to keep a lifetime of memories, and access them from any device".



The service automatically tags your photos, organising them by person, place or object. You can share and edit photos, and search for them using phrases, such as 'sunset in Cornwall'.

Google Photos is available online now at https://photos.google.com, and as an app for Android (www.snipca.com/16725) and iOS (www.snipca.com/16726). It was launched at Google's 2015 I/O conference in late May, held in San Francisco, where the company usually announces new services and features.

As well as unveiling Google Photos, the company revealed more details about Android M, the next version of its mobile operating system, saying it will have a 'Dozing' feature to help save battery life. It also said it will be introducing offline Google Maps later this year, letting you follow directions without an internet connection.

We'll have a Workshop on Google Photos in our next issue, out Wednesday 24 June.

Half of UK homes now own a tablet

Tablet use in the UK has rocketed in the past four years, with 54 per cent of households now owning a tablet – up from just two per cent in 2011.

The figure comes from an Ofcom report (www.snipca.com/16733), which also says that tablets are "particularly popular" among those aged 35-54, with 64 per cent of people in this group owning one.

More children than ever are also using the devices, says Ofcom, leading to the rise of a "tablet generation". Ofcom found that 71 per cent of children aged 5-15 have access to a tablet at home, with 33 per cent owning their own device. Toddlers are also using tablets, with 11 per cent owning one.

Some security experts responded to the figures with concern. Marta Janus, from Kaspersky Lab, warned that parents must educate children using tablets about the risks of cyber bullying.

"The problem is that many parents assume that cyber-bullying only becomes a problem when children start using social-media platforms like Facebook and Twitter," she said.

"However, the reality is that children as young as five are in fact using platforms where they can receive messages and interact with others, such as shared school platforms, social games, and even photo-sharing sites such as Instagram".

IN BRIEF

CORTANA COMING TO APPLE AND ANDROID

Microsoft is launching Cortana, its voice-activated personal assistant, as an app for iPhone and Android, providing an alternative to Apple's Siri and Google Now. Cortana is currently only available on mobile devices running Windows Phone and in Windows 10. Microsoft said that the apps will be able to perform "most" of the tasks the Windows Phone version can, including setting reminders and alarm calls. Cortana will arrive on Android in late June and on iOS "later in the year".

PIRATE EBOOK SITES TO BE BLOCKED

The High Court has ordered Britain's leading ISPs to block websites offering pirated ebooks, following legal action from the Publishers Association. Seven sites, all based overseas, will be blocked from 9 June, meaning users in the UK will have to disguise their location to access them. Around 10 million ebooks were being illegally offered for free, the Publishers Association claimed.

WATCH NETFLIX IN FIREFOX WITHOUT PLUG-IN

Mozilla has updated Firefox to let people watch videos on sites that use HTML5 and protect content using DRM. This means Firefox users can now access Netflix without having to add the Flash or Silverlight plug-in. Firefox previously blocked these sites because DRM clashes with Mozilla's open-source ethos. Existing Firefox users will be automatically updated to the new browser – otherwise it can be downloaded from www.mozilla.org/firefox.

Named & Shamed

Jane Hoskyn puts the boot into tech villains, jargon-spouting companies and software stuffed with junk

WARNING – Junk ahead

Junk offender: SourceForge

I'm not angry that SourceForge (http://sourceforge.net) has been found bundling adware in free software installers. Just very, very disappointed.

I have used this open-source software-hosting site for years, and championed it as a more reliable alternative to commercial download mirrors such as Cnet (www.download.com). I expected installers from commercial mirrors to include optional 'extras', but not those from SourceForge.

Then in May, a SourceForge installer (www.snipca.com/16784) for the brilliant free Photoshop alternative Gimp was discovered to contain adware. Gimp's developer knew nothing about this. SourceForge apparently took over an old Gimp download file and wrapped it in a new installer, topped up with adware.

SourceForge briefly bundled an "abandoned" Gimp file with adware

Can SourceForge be trusted?

Gimp's lead developer Jernej Simoncic was not happy when he found out, and even less happy when SourceForge failed to respond after he asked them to remove the installer (read the email exchanges here: www.snipca.com/16786).

SourceForge did respond in public, however. Gimp "wasn't hijacked, just abandoned" says a blog post (www.snipca.com/16787). That just makes me wonder how many times has it furnished other "abandoned" projects with adware. Within a few days, SourceForge removed adware from its Gimp installer. But I still won't be using it.

Get Gimp without adware

Gimp's own website (www.gimp.org) is a great example of why you should download software from the developer's own site wherever possible. It guarantees you'll get the latest version without any 'wrapping' by third-party hosts, and includes useful information such as a wiki site and FAQ (www.snipca.com/16788).

To download Gimp, click Downloads and then 'Download GIMP 2.8.14'. It's a large file (87.7MB) so it may take time to save and install, but at least it won't infest your PC with unwanted extras.

What are they talking about?

What they say

Microsoft (www.snipca.com/16783): "With Windows 10, we start delivering on our vision of more personal computing, defined by trust in how we protect and respect your personal information, mobility of the experience across your devices, and natural interactions with your devices."

What they mean

Windows 10 will work on your phone and tablet, too, in the over-excited words of a blog post announcing when Windows 10 will launch (see News, page 6).

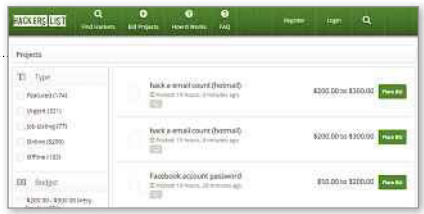
Jane's villain of the fortnight

Hackers List

If you want your boiler fixed, go to Rated People (www.ratedpeople.com) and find a plumber. If you want a Facebook account hacked, go to Hackers List (https://hackerslist.com) and find a thief.

This is actually happening. My first instinct was to dismiss it as an online club for teenage geniuses, but those guys don't need sites like this. Hackers List is like eBay for petty PC theft, aimed at disgruntled everyday folk who need a hacker to spy on their ex or steal from their boss. That ex or boss may be you.

Click Browse to see the latest postings. Someone's offering $300 (£198) for a quick 'Hack a Facebook profile' job. 'Hack two companies' site



for money' pays $2,000 (£1,320). Posted anonymously, of course. Not all offered 'hacks' are illegal – some are just about fixing PCs. But most are illegal, immoral, and scarily mundane.

On the upside, if the hackers who take jobs through Hackers List are as good as the builder I found through Rated People, they won't be able to hack into a lunchbox.

Want to nominate a villain of the fortnight? Email us at editor@computeractive.co.uk

Question of the Fortnight

How safe are your online security questions?

We all want to be safe online, but are security questions really the answer?

Where were you born? What's your mother's maiden name? Who was your first teacher? These are the kinds of questions websites often ask you before letting you access your accounts or recover your passwords. They are meant to provide an extra layer of security, but Google says that answering questions to log into accounts is unreliable and unsafe.

A team of researchers at the company recently analysed the login behaviour of hundreds of millions of people, finding that around 40 per cent couldn't remember their answers (read its report at www.snipca.com/16619).

This may seem hard to believe. After all, how can you forget where you were born? The problem is that many people, when initially entering the correct answer to the question, try to be clever or witty, in part to make it harder for hackers to guess. So instead of typing 'Nuneaton' as the approved answer, for example, they would type 'Nun eating'. When the time comes to provide it, they've forgotten their coded answer.

> "Hackers carry out 'mass guessing attacks' to force their way into people's accounts"

The fear that hackers will guess answers has lead to websites asking more obscure questions. But the answers to these are much harder to remember. Google found that only 76 per cent of people remembered the answer to 'What's your father's middle name?', info that a hacker could find with reasonable ease in this era of recklessly shared information on Facebook and Twitter. But only 55 per cent could recall the answer to 'What was your first phone number?', which would be much more difficult to find online. As questions become more personal, and therefore harder to guess, our recall becomes worse. Only 22 per cent of people recalled their library-card details; only nine per cent their frequent-flyer number.

Answers that don't change over time are the easiest to remember. Your place of birth remains set forever, but not so your favourite TV show, holiday destination or type of food – Google found that only 53 per cent of people could remember their favourite food after three months.

Even if you could remember your favourite food, there's a danger that hackers would have beaten you to it. Google claims that people's answers are so predictable that a hacker has a 19.7 per cent chance of guessing the favourite food of an English speaker ('pizza', apparently). Many people also give the same answer to different questions, just as they use the same password for multiple accounts. Google says that hackers carry out "mass guessing attacks" to force their way into people's accounts. Doing this is a lot easier than you may think. In 2009, researchers at the Institute of Electrical and Electronics Engineers guessed about 10 per cent of answers by using common responses.

Google's solution is to make sure its users never rely solely on answering questions because "it appears next to impossible to find secret questions that are both secure and memorable". Instead, as it outlined in a recent blog post (www.snipca.com/16632), Google will only ask questions "as a last resort" when it can't prove a person's identity by email or text message. It also advises people to boost their Google security at https://myaccount.google.com by adding a "recovery" phone number and email address. Doing so will mean you won't have to remember every last detail of your life.

THE FACTS

- 24 per cent of people couldn't remember their father's middle name when answering a security question
- Hackers carry out "mass guessing attacks" to work out answers and access accounts
- Google says it will use security questions only when it can't identify a person by text or email

Letters

Tell us what's on your mind
Email: letters@computeractive.co.uk
Facebook: www.facebook.com/computeractive
Twitter: @ComputerActive
www.twitter.com/computeractive

Saying Ninite to tickboxes

I'd like to echo Stuart Andrews' thoughts in The Final Straw, Issue 450, where he turns his wrath upon the ticky-boxes of doom that plague software the world over. I can't even update Adobe without it trying to replace my beloved Firefox with another browser or Zoo (www.zoo.com) from its position as search engine of choice on my PC.

I had resigned myself to a lifetime of reading the technological version of small print until I went on a course at work. While doing it I was introduced to Ninite (https://ninite.com) – a simple site where you tick the browsers, security programs, add-ons, players and other software you have and it automatically scans to ensure you have the most recent version. "What has this got to do with ticky-boxes?" I hear you ask. Well Mr Andrews, Ninite updates any out-of-date services in the background, while ticking or unticking the relevant boxes to ensure you don't download any of the extensions, browsers, malware or junk.

I've only got a dozen or so programs on my PC that need this service, but it's still saved me time, effort and the technologically fuelled rage of a shark with an itchy tail.

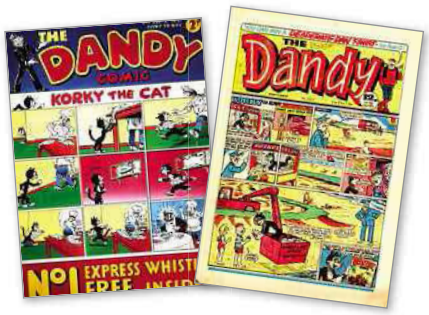
Jonathon Plummer

Computeractive is fine and Dandy

When I was a lad back in the late Forties/early Fifties, I looked forward to *The Dandy*. It was the weekly highlight of my young life, a chance to escape (for 30 minutes or so) the circumstances of that era.

Of course, as time passed and technology spread its ever-widening net, many publications - including, sadly, my childhood comic of choice – perished as modern mobile hardware became all the rage.

Yet, now aged 73, I have something else to look forward to (albeit only once a fortnight). Some years back, I bought the number one edition of *Computeractive*. It cost 99p and had a cartoon on its cover showing a lad throwing his computer out of the window in frustration (I still have this first issue.) Glancing through it, I saw immediately that it spoke my language. I have not missed a copy since.



When I bought my first computer - a Spectrum – I wasn't even sure how to turn it on. Now, avidly ploughing through every Workshop in the magazine, I can honestly say that there is little I cannot do on my laptop, all thanks to *Computeractive*. Keep up the good work. I'm sure I'm not the only one who appreciates your team's splendid dedication.

George Wheeler

Amazon is only 'greedy' if its strategy fails

I'm going to say something that I don't expect many *Computeractive* readers will agree with. It regards Amazon's decision to increase the minimum order price (to £20) to qualify for free delivery. In Issue 450, reader Simon Hennessey wrote that Amazon is getting "greedier and greedier". He may well be right, but only if Amazon's decision loses them business. What we shouldn't do is judge the price rise on moral grounds.

Amazon isn't run by volunteers. It's a business, not a charity. It is free to make any (legal) business decision it likes, as are rival companies in response. Rival websites may choose to undercut Amazon's minimum order price, and could win lots of business.

It's clear that Amazon's long-term aim is to persuade everyone to pay for its Prime service (£79 a year), which includes free delivery regardless of price. This is only a "greedy" strategy if it fails commercially, just as my local pub would fail if it "greedily" increased the price of a pint to a tenner, and lost all its customers to the cheaper Wetherspoon's down the road.

Doug Hopkins

It would be great if Amazon lost business over its decision to increase its free delivery order limit to £20, but actually it won't. Like so many huge concerns that make massively unpopular announcements, they will simply ride out the initial storm, ignore the furore and eventually the rip-off becomes the new normality and we all get on with life. Other examples are:

1 EBay's massive price increases; forcing users on to PayPal; and changing the way it displays information about your purchases and items for sale.
2 Huge increases in gas and electricity

Windows 98 would fail its MOT

I enjoyed reading Dave Crew's Star Letter in Issue 450 ('Give me back Windows 98 - the Morris 1000 of operating systems'). But continuing his analogy, if the world was still running the "Morris 1000 that is Windows 98", we would have to overcome a few problems. Compatible parts would be hard to get hold of and more expensive to replace. Hardware upgrades would be needed to ensure compatability with the 'fuel' (we don't have four-star leaded anymore). Could we get all third parties (for example, Adobe) to continue supporting Windows 98? Impossible, I'd think.

Most car manufacturers give their

models 10 years support (for spares) after production stops, so the end of support for Windows XP last year was overdue. And of course, someone has to make money, so new models, new software, and upgrades have to be sold.

Kieren Dight

prices, which are well above inflation.
3 The banks (enough said).
4 The Post Office hiking its prices into the stratosphere prior to privatisation.
5 Apple's refusal to make iTunes easy to use.
6 Flickr's baffling interface.
7 VAT rising to 20 per cent.
I could go on, but you get the idea.

Gordon Jackson

Problem upon problem after upgrading to Windows 7

Having read many readers accusing those who still use XP as being irresponsibly stupid, I feel compelled to put in my five pennyworth. Having seen the writing on the wall a couple of years ago, I began to make the transition from XP to another operating system, and thought that Windows 7 seemed to fit the bill. Upon installing it, I began the arduous task of loading the various drivers and relevant software for my peripherals. This is where the fun began. My £100 Creative sound card immediately had problems with those programs associated with it. The Creative site no longer supported the card, so that was a non-starter.

Next came the printer. I'd bought an HP model because it could print on my CDs – and yes it did work with Windows 7 – but I found that the CD-printing option was no longer available. It was a similar story with my scanner, which no longer scanned negatives.

Finally Nero, which had always worked faultlessly, also had problems with Windows 7. So after forking out for Windows 7, I now had to spend more money to replace perfectly good items that weren't compatible with the new operating system. My solution was to dual-boot my PC. Now I can keep up to date with Windows 7 and continue to use my old software and devices.

Ian Wood

Use your local PC repair shops - or lose them

I totally agree with Stuart Andrews regarding the poor advice given by larger PC stores (The Final Straw, Issue 449). I spent many years on the west coast of the Highlands and I had a 70-mile trek into the Inverness Computer Centre (http://invcomps.co.uk, see screenshot) for computer help or spares and repairs. It is run by a terrific crowd of enthusiastic and very knowledgeable lads. They would let me drop my machine off at 10am. I went and did my day's shopping, and picked up the repaired machine around 4pm. They built me, from scratch, a home PC exactly to my specifications, with no fancy add-ons, at a very good price.

Now I live on the Lincolnshire coast, I recently got the Mablethorpe Computer Services (www.mablethorpecomputers.co.uk) to build me a new computer, as specified and at a very reasonable price. So I have great faith in these small independent operations. Are we all too lazy to go there and ask for their very professional advice when we can pop into a computer superstore, and be dazzled by flashy machines with loads of extras that you don't really need? Perhaps we should start a campaign to make people aware of their local computer shop. If they die we'll all get poorer!

John Cowell

STAR LETTER

Apple's iPad for pensioners is 'patronising'

I'm 77 years old. Since retiring nine years ago I've trekked in Peru, swum with dolphins in the middle of the Atlantic and run my first half-marathon (two hours, 10 minutes!). I feel fit, sharp and inquisitive. Modern technology doesn't intimidate me (although it does frequently annoy me). I don't look at smartphones and think 'how on earth do I use that?'. So why should I be interested in Apple's iPad for OAPs (News, Issue 450)?

In principle, I don't object to any device being designed for those of an advanced age, whose eyes and fingers may be slowly failing. I can see why Apple would introduce bigger buttons and text – they would be useful on any device. But why are the pre-installed apps all health-related? How patronising. I'm surprised Apple didn't include an alert reminding us to go to the toilet every 20 minutes. Here's a little memo to Apple: we don't all become bed-ridden geriatrics on our 65th birthday.

I actually use an iPad, and I learned how to use it all on my own! I didn't need to get help from my gadget-obsessed son - if anything, I now instruct him on how to use it. I didn't need to email Apple for advice, and that's a testament to how easy it is to use the device, even without super-size buttons.

I'll probably be nudging 80 by the time this iPad for pensioners makes its way to the UK from Japan, but I'll be sticking with the one I currently use, or the most recent one that Apple releases (finances permitting). That said, maybe Apple could brand it as an iPad for 'moany old gits'. I might buy it then!

Kenneth Corden

The Star Letter writer wins a *Computeractive* mug!

Consumeractive

Do I have to return my Batman chess pieces?

Q I ordered some Batman chess pieces from Eaglemoss (www.eaglemoss.com) just before Christmas for my son. When nothing had arrived by February I called the company. I was told it'd take a "little while longer" – the pieces finally turned up at the end of April. But they were the wrong pieces. I can't get any response from Eaglemoss and want what I ordered, but do I have to send the others back?

Mike Spelling

A Yes, Mike will have to send the chess pieces back, but Eaglemoss must pay for it by sending Mike a pre-paid package. Mike should make sure he gets proof of postage. Because the order is already six months late, we believe Eaglemoss shouldn't wait for the items to be returned before it sends the correct order to Mike. But he needs to be aware that Eaglemoss is entitled to take legal action to recover the items if he doesn't return them. He's having difficulty contacting Eaglemoss, so we will contact the company on his behalf. Hopefully we won't need to shine the Bat Signal in the sky to reach them.

CASE ONGOING

How can I prove I sent back the correct faulty tablet?

Q My stepdaughter recently ordered a Kindle Fire HDX 8.9in from the catalogue company Very (www.very.co.uk). However, the tablet delivered on the 27 March wouldn't switch on and we returned it the next day. In April, Very returned the tablet to us, stating that it was an "old and used 7in Kindle HD", essentially accusing my stepdaughter of fraud by keeping a brand new 8.9in tablet, and sending back an old 7in one. But they sent back the 8.9in tablet! It's all very confusing. What should we do now?

Michael Boyes

A The case rests on Michael's stepdaughter being able to prove that she didn't send back an "old and used" 7in Kindle Fire, while secretly keeping the original. But first, it's crucial to find out why Very thinks the tablet it received was old. One theory we have is that Very has mixed up its tablets. After receiving the 8.9in Kindle Fire from Michael's stepdaughter, Very somehow concluded that not only was it a 7in device, but that it had also been used by a previous owner. We can't see how they could possibly have made this mistake, so we've contacted them for an explanation.

It's possible that the tablet is indeed "old and used", but that it was used by someone other than Michael's stepdaughter. She can confirm this by getting the tablet examined by independent experts. If the tablet is "old and used", as Very claims, then the previous owner may have left some data or apps on it. This will be evidence that the tablet has indeed been used, but not by Michael's stepdaughter. Hopefully, though, Very will sort out the problem without an examination being required. We'll keep you posted on this intriguing case.

CASE ONGOING

Can I claim for a laptop with the wrong USB ports?

Q I bought a Dell Inspiron 17 model 7746 for £879 on 27 January 2015. One of the main reasons I chose this laptop was because Dell's website clearly stated in the specification that the laptop has four USB 3.0 sockets. But the one I received has only two USB 3.0 and two USB 2.0 sockets. I've contacted Dell twice by email and completed a customer-satisfaction survey, but have had no response. Do you think I've got a case?

David Ewing

A Yes, David has got a case under the Sale of Goods Act for "goods not as described". He is entitled to send the laptop back for a full refund or can ask for "damages", which is essentially some money off the price. Dell may try to say that David has owned the laptop for longer than a "reasonable time", and therefore has legally "accepted" it. But he has been trying to contact Dell since receiving the laptop. It's not his fault Dell hasn't responded to his emails.

David will have a stronger case if he has a screenshot of Dell's website that showed the laptop was being described as having four USB 3.0 sockets. It is also worth saving adverts that make claims about a device's specifications.

CASE ONGOING

We stand up for your legal rights

Contact us so we can investigate your case

Email: consumeractive@computeractive.co.uk
Write: Consumeractive, Computeractive, 30 Cleveland Street, London W1T 4JD
Please include both your phone number and address.
Unfortunately, we can't reply to all your letters.

Is there life after a warranty?

Q I bought a £500 Samsung Galaxy 3 phone in May 2012. Within less than a year, images were being burnt on to my screen, so I had it repaired under warranty. Now the problem has started again, but Samsung's customer services said I'd have to pay for a repair because the warranty has run out. There are reports that AMOLED screens can suffer this problem, so can you help me find a solution?

Kamal Uddin

A We're happy to help Kamal because customers' rights don't end when the warranty does. But first he needs to contact Samsung customer services and tell them, while he is aware the warranty has expired, he still has rights under the Sale of Goods Act and the Supply of Goods and Services Act. Customers have five years after purchase to use these acts in a complaint, assuming a device is inherently faulty, so Kamal has time on his side.

If Samsung doesn't help Kamal, we'll step in. At this point he would probably have to pay for an independent report to prove the problem with the screen has existed since purchase. Reports of problems with AMOLED screens are only 'hearsay' in his case, so they have little legal weight. However, he should mention them to Samsung. They won't harm his chances of getting a response from the company.

CASE UPDATES

Reader gets refund and free ticket from First Great Western

We can report a happy outcome to Judith Rowbotham's case, which we reported in Issue 447. First Great Western (FGW) has given her a full refund for the ticket she was forced to buy after she was unable to print her original one at home. As a goodwill gesture and to apologise, FGW has given her a first-class ticket, which is valid for a year.

A spokesperson for FGW told us: "Thank you for passing this on from Professor Rowbotham – I was very sorry to hear she had problems with her 'print at home' ticket recently. The facility is intended to make the ticket-buying process a painless one and we have clearly failed to hit that mark on this occasion".

FGW also said "there are a number of options available to ticket-office colleagues and there was no need to purchase a second ticket". It plans to follow this up with the station that forced Judith to buy a ticket.

We're pleased with this outcome because we felt Judith was entitled to a refund.

She had paid for a service she couldn't use because of minor technical difficulties. There's nothing in FGW's terms and conditions saying that if you can't print your ticket you've got to buy another, so she could have sued for breach of contract. Even if that condition had been in FGW's small print, a judge may well have ruled that it was unfair.

First Great Western

THIS WILL COME IN USEFUL

Contact details for e-reader manufacturers and ebook services

Amazon (Kindle)
Email, phone or live chat: www.snipca.com/16412
Twitter: @AmazonKindle

Audible
0800 496 2455
Email: customercare@audible.co.uk
Twitter: @audibleuk

Barnes & Noble (Nook)
Email: customerservice@nook.co.uk
Twitter: @nook_uk

Foyles ebooks
Email: customerservices@foyles.co.uk
Twitter: @Foyles

Kobo
0808 178 0268
Email: www.snipca.com/16410
Help pages: www.kobo.com/help
Twitter: @KoboHelp

Lulu
Email: www.lulu.com/support
Twitter: @Luludotcom

Sony
0207 365 2810
Email: www.snipca.com/16411

Protect Your Tech

Scams and threats to avoid, plus new security tools

WATCH OUT FOR...

20-year-old internet bug Logjam

What happened?

Security researchers found another severe flaw in the TLS technology that encrypts sensitive data being sent between web servers and browsers. It follows the discovery of the FREAK bug in March (https://freakattack.com), which also weakens TLS, making it easier for hackers to steal personal information from people browsing the web (see News, page 6, Issue 445).

The new flaw, called Logjam, was identified by security experts from a number of universities and organisations, including Microsoft Research, the University of Michigan and Baltimore's Johns Hopkins University. Like FREAK, the flaw has existed since the mid-Nineties, but it's not known whether hackers have exploited it. Researchers said it was more likely that it had been used by governments for surveillance than hackers to steal banking details from the public. Around eight per cent of the top million most popular sites are vulnerable to the bug, the researchers warned.

What should you do?

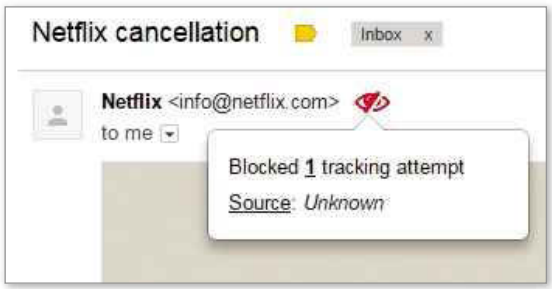
To find out whether your browser is at risk, visit https://weakdh.org, a website built by the team that discovered Logjam. If it is vulnerable, you'll see a red warning message at the top of the web page (see screenshot above), telling you to update your browser. Microsoft has already fixed Internet Explorer, while all the other major browsers are working on their own fixes (these may have been implemented by the time you read this). The catch is that the solution may knock 20,000 websites offline.

Sadly, it seems likely that this won't be the last advice we give relating to a 20-year-old flaw, given the fragmented nature of internet security. Researchers are bound to find another vulnerability that dates back to a time when web pioneers didn't take security as seriously as we do now.

New tools

PixelBlock for Gmail

www.snipca.com/16564



One of the reasons nuisance phone calls are so difficult to block is because every time you answer one, you're telling the calling company that your phone number is live. The same thing happens when you open an email. Companies know when you've read it because they insert a pixel that reports this information back.

There's nothing particularly evil about this. It's always helpful for reputable companies to know that their newsletters are being read. The problem comes when you're being relentlessly spammed, and can't seem to unsubscribe. That's where PixelBlock may help. It's a Chrome extension that blocks the automatic notification telling companies you've opened their email. Once you've added it to Chrome, it adds itself to Gmail, and shows you a red-eye icon when it identifies this type of email. This means you can read then delete the email without the company knowing you've done so. Hopefully they'll stop pestering you with junk if they think their emails are being ignored.

ScamWatch

READERS WARN READERS

Son saved me from iTunes scam

I was given an iPad for Christmas (thanks son!), and have bought many apps for it since. I wonder if that's why I was targeted by scammers recently. They emailed me a receipt for £10.99 for an app I hadn't bought. The email said if I didn't recognise the purchase I should click a link to request a refund. There was something that didn't ring true, so I asked my son about it, and he told me it was a well-known scam where criminals ask you for your credit card (thanks again son!). Here's more info about it on the Action Fraud site: www.snipca.com/16563.

Edward Murnaghan

Warn your fellow readers about scams at letters@computeractive.co.uk

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Networking Provider of Choice for Team Dignitas
International eSports Professionals

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uk.tp-link.com /tplinkuk /tplinkgaming

amazon.com dabs.com ebuyer.com technology delivered OVERCLOCKERS UK SCAN

Best Free Software

Brilliant new programs that won't cost you anything

BROWSER

Maxthon Nitro

www.maxthon.com/nitro
What you need: Windows XP, Vista, 7 or 8/8.1

'Simply fast', says the download page for Maxthon's new browser. That sums it up so well we hardly need to say any more. But we will, since we're here.

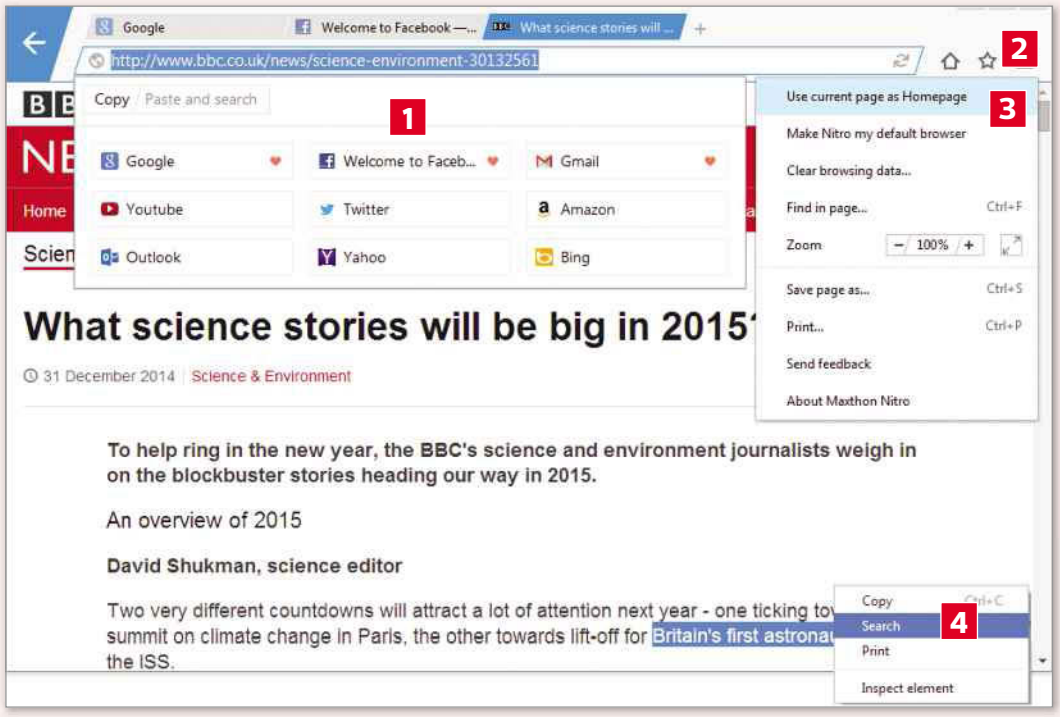
Nitro is your perfect second browser. It probably won't replace Chrome, IE, Firefox or whatever you use (and we bet you're using one of them – if not, let us know what you do use), because it's stripped of many of the features you're used to in those browsers. There are no extensions, no customising options and not even a settings page. Despite this, Nitro still managed to confuse us – the difference between 'Bookmarks' and 'Favorites' is not clear.

But it's a good backup for when your usual browser grinds to a halt, or for when you need to find a web page really quickly. Nitro, you see, is designed purely for speed. It starts almost instantly, and loads pages noticeably faster than other browsers.

Nitro is also much kinder to your PC than the likes of Chrome. It's the ideal fit for this issue's cover feature, in fact. If you want to make your PC live twice as long, ditch Chrome, disable IE and use Nitro instead. It uses a tiny amount of processor power and it's a portable program, so it won't infest your hard drive and Registry with files. Keep a copy on a USB stick to run quickly on any computer you want, including your old XP PC.

Click Download to get the program file, which has a worryingly long filename but is safe. Click the file to run it, then click 'Go!' in the splash screen (this won't appear next time) and start browsing.

Maxthon also makes Maxthon Cloud Browser (www.maxthon.com), a more feature-rich and less nimble browser with Adblock Plus built in (see Best Free Software, Issue 444). Maxthon says Adblock Plus is coming to Nitro "soon" – we'll let you know when it happens.

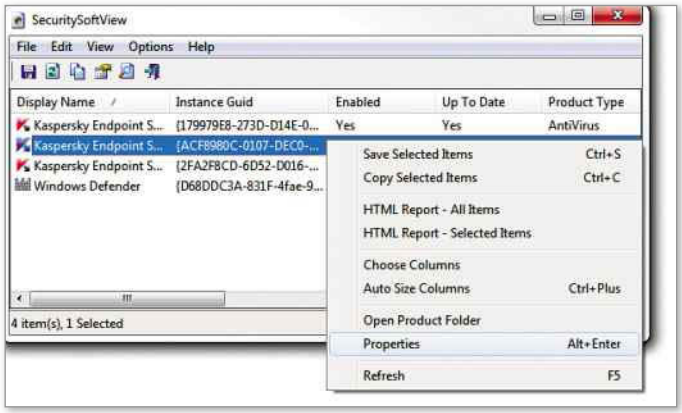


1 Click Nitro's address bar to open a box of pre-set shortcuts, including Facebook and Gmail. Click Copy to copy the address of the page you're on.

2 To save a site as a 'Favorite', open it and then click the star icon. Click 'Add to Favorites', then Add in the window that opens. You can create folders here, too.

3 To set your homepage, open it in Nitro, click the menu icon and then click 'Use current page as Homepage'. Click 'Find in page' to search the site you're on.

4 Select any text on a web page, right-click and select Search. This runs an instant Google search in a new tab. To close the tab, hover over it and click the 'x'.



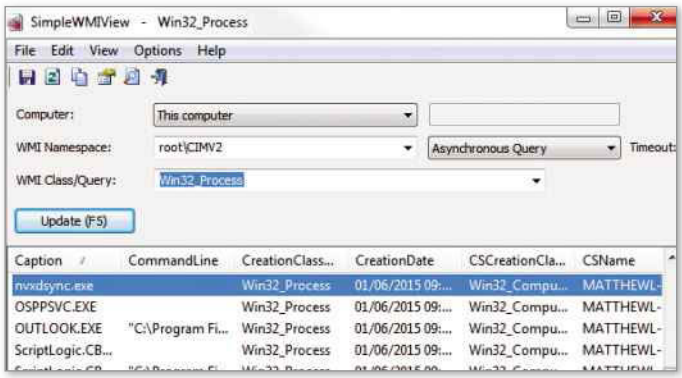
SECURITY TOOL

SecuritySoftView

www.snipca.com/16574

What you need: Windows XP, Vista, 7 or 8/8.1

Quickly check which antivirus, anti-spyware and firewall programs are installed and enabled on your PC with this small, free tool – one of two new releases from NirSoft, maker of umpteen excellent portable system tools (for another, see below). Click Download SecuritySoftView, extract the contents of the ZIP and click the program file to run it. Straight away you'll see a list of software currently protecting you from malware, with at-a-glance registration details and update status. To see more details about each program, right-click and click Properties.



SYSTEM TOOL

SimpleWMIView

www.snipca.com/16746

What you need: Windows XP, Vista, 7 or 8/8.1

NirSoft's second new tool of the fortnight is supposedly aimed at developers, but it's so informative it deserves a place in everyone's PC toolkit. Its default setting ('Win_32 Process' in our screenshot) reveals a static list of all your running processes. Alternatively, type a different command (see www.snipca.com/16746) and click 'Update (F5)' to see lists of all your PC's startup programs, all Windows services, all installed drivers and far more. Pages of data about each item, including its largest memory usage, are just a right-click away. You can then export all this information as an Excel spreadsheet. Like SecuritySoftView, SimpleWMIView can be kept on a USB stick to run safely on any PC.

WHAT SHOULD I DOWNLOAD?

We tell you what software to use

How do I record what's on my PC screen?

Q What is the best free screen-capture program? I'm looking for something that lets me record short video clips of items picked up by my car's dashboard camera, as well as still screenshots of web articles or emails. Thanks in advance.

John Douglass

A Good screen-recording software can cost more than a computer, as we revealed in our cover feature in Issue 447. But if you just want to record clips of five minutes or less, you should use the free online tool Screenr (www.screenr.com). It's easy to use and works entirely in your browser, so you don't have to download anything. It lets you record whatever is playing on your PC's screen, including your video files. You will need to have Java enabled on your PC.

There are numerous tools for capturing still screenshots, including Dowce (www.dowce.com), which we featured in Best Free Software in Issue 445. But don't forget the Windows Clipboard. Press PrtScreen (Print Screen) to capture your screen, then paste it into a free image editor such as IrfanView (www.irfanview.com). Then you can crop it, apply adjustments, resize it and save it in whatever format you want.

Do you need our advice on what software to use? Just email us at letters@computeractive.co.uk

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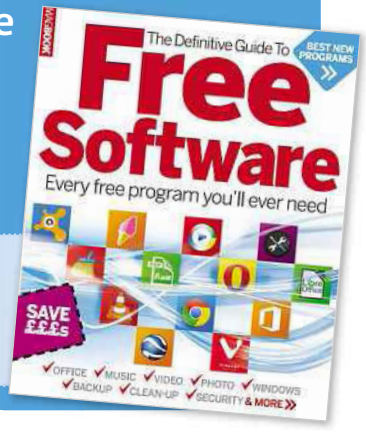

Reviews

New products tested by our experts

PHONE | £495 (without contract)
from www.snipca.com/16548

LG G4

LG's new leather phone tries to outshine the Galaxy S6

Now that Samsung has dropped removable batteries and SD card slots from its flagship Galaxy S range of phones – starting with its latest model the S6 (see our review, Issue 450) – you'll have to look elsewhere if these are important to you. The LG G4 is one of the few Android phones that still has both features, as well as the latest technology.

Like the G Flex 2 (see our review, Issue 447), the G4 has a curved screen, but this is a more subtle design than on its stablemate. Unlike the G Flex 2, the G4 is available in a variety of leather finishes on its rear cover. We don't think they're as classy as those for the Motorola Moto X (see our review, Issue 440), for example, but they're not as naff as the fake leather found on older Samsung Galaxy phones. In any case, you can choose from a choice of sturdy, attractive plastic-backed options.

> "It's undermined by poor battery, camera and performance"

The G4 otherwise looks and feels very similar to its predecessor the G3 (see our review, Issue 428). This means the volume and power buttons are located on the back of the phone, rather than the sides, but pressing them inadvertently was never a problem during our tests because they're slightly recessed in the casing.

Disappointingly, the battery only lasted 19 hours 16 minutes when connected to O2's 3G network in London and used for calls, taking photos, web browsing and GPS. This is less than almost all other Android phones we've tested around this price. At least call quality was very high. Callers reported that we came through loud and clear, with the racket from a nearby building site effectively minimised.

Unlike the G Flex 2 (and an increasing number of Android phones), the G4 doesn't use an eight-core processor. Instead, it's the first mobile device we've tested that uses a six-core processor – the Snapdragon 808. While, unsurprisingly, this made it a little slower in our benchmark tests than its eight-core counterparts, the difference is pretty negligible. Combined with 3GB of memory, it can easily handle the latest, most demanding apps.

It's a shame the touchscreen occasionally struggled to keep up with our finger swipes and taps, which is a rare deficiency in an Android phone at this price. The screen's image quality was superb though – we simply couldn't fault its contrast, colour accuracy, viewing angles or sharpness. The 5.5in screen is too big to use comfortably with one hand, however, particularly if you have smaller hands.

The camera was something of a mixed bag. While it took no time to focus and reproduced colours faithfully (even in dimly lit conditions), it sometimes struggled to produce a sharp focus. As if to compensate for this softer focus, LG's camera app tended to over-sharpen images, which in turn made finer textures and skin tones look unrealistic and unflattering.

The LG G4 is a disappointing phone. While it has things going for it (screen quality, performance and looks), these are undermined by the sub-standard battery life, camera and touchscreen. Unless a removable battery and a SD card slot are absolute must-haves, we suggest a Sony Xperia Z3 (see our review, Issue 443) or a Galaxy S6.

SPECIFICATIONS
5.5in 2560x1440 pixel touchscreen • 1.8 + 1.4GHz Qualcomm Snapdragon 808 six-core processor • Adreno 418 graphics chip • 3GB memory • 32GB storage • 4G • Micro SIM • Android 5.0 Lollipop • 155g • 149x76x10mm (HxWxD) • One-year warranty
www.snipca.com/16549

VERDICT: Not a bad Android phone, but you'll have to really want a removable battery and SD card slot to overlook its shortcomings

★★★☆☆

ALTERNATIVE: Samsung Galaxy S6 £600 (without contract) More expensive, but with a superior camera and better responsiveness

MINI PC | **£191 without contract** from www.snipca.com/16550

Asus VivoMini UN42

A small, cheap and easily upgradeable mini PC

Back in Issue 427 we reviewed the Asus VivoPC, a mini desktop computer that was certainly fast, but not easy to upgrade. Asus has followed it up (and outdone themselves) with a Windows 8.1 PC that's even smaller. The VivoMini UN42 is small enough to fit inside a handbag or your average lunchbox with some room to spare.

To keep the price down, Asus has cut corners with the specifications. There's a meagre 2GB of memory and a modest 32GB SSD, which will fill up and become cramped in no time. These flaws are easily remedied though. The base of the PC comes off quite easily (illustrated instructions for removing it are included), giving you ample access to the interior.

> "This impressive PC is cheap, quiet and surprisingly easy to upgrade for such a small computer"

There are two memory slots that can accommodate up to 16GB (although you'll have to dispose of the 2GB chip already present) and you can replace the SSD with any mSATA model you like (for a choice of inexpensive memory and SSD upgrade options from Crucial visit www.snipca.com/16554).

Increasing the memory is recommended because the dual-core 1.4GHz Celeron 2957U processor was hampered in our benchmark tests by the meagre amount of memory. With a bit more clout, the VivoMini would be fast enough for use as your main computer.

Because the power-efficient processor uses air flowing through the PC's vents to keep it cool, there's no need for a fan – making the VivoMini a very quiet operator.

Because 802.11ac and Bluetooth are both built in, you won't need USB adapters to take advantage of these wireless technologies. A pair of USB 3.0 ports and an SD card slot are located on the side for easy access, while the rest of the ports are placed on the back. These include an HDMI port and a DisplayPort connector. You can connect up to three monitors simultaneously, although two will have to be DisplayPort and daisy-chained together.

To save even more desk space, you could mount the VivoMini on the back of a Vesa-compatible monitor using the bracket provided. The VivoMini is sold without a monitor, keyboard or mouse, so you'll need to supply your own if you don't already own a set.

The VivoMini may be small, but it's hugely impressive. It's cheap, quiet and surprisingly easy to upgrade for such a small PC. You'll get the most out of it if you do upgrade it, but even this added expense isn't enough to deprive the VivoMini of a well-deserved Buy It! award.

SPECIFICATIONS

1.4GHz Intel Celeron 2957U dual-core processor • 2GB memory • 32GB SSD • Intel integrated graphics • 131x42x131mm (HxWxD) • 1kg • One-year warranty
www.snipca.com/16552

HOW WE TEST

Computeractive is owned by Dennis Publishing, which owns a hi-tech facility for testing the latest technology. You'll often read references to our benchmark testing, which is a method of assessing products using the same criteria. For example, we test the speed of every PC and the battery life of every tablet in exactly the same way. This makes our reviews authoritative, rigorous and accurate.

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Our writers follow strict guidelines to ensure the reviews are fair and impartial. The manufacturer has no involvement in our tests.

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We award every product that gets five stars our Buy It! stamp of approval. It means we were extremely impressed by the product, and we think you will be too.

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PRICES

Our reviews contain a link to the best price we found online at the time of press.

VERDICT:

You'll need to upgrade this mini PC to get the most from it, but it's still a cracking computer

★★★★★

ALTERNATIVE: Intel NUC D54250WYK £280 Similar in size to the VivoMini and pretty upgradeable too, but with a faster processor

LAPTOP | **£1049** from www.snipca.com/16557

Apple MacBook (Retina 12in)

Apple's radically minimalist new laptop

Apple has a reputation for jettisoning old technologies in favour of new ones, like when it replaced floppy drives and modems with USB and Wi-Fi. These moves are often ahead of their time because as consumers we aren't always ready to embrace new (often better) ways of accomplishing certain tasks.

Well, Apple has done it again with its latest MacBook laptop. At around the thickness of three stacked copies of this magazine and weighing just 920g, this laptop is incredibly thin and lightweight for a 12in model. Apple has achieved this by dispensing with all but two ports – a combined headphone/speaker socket and a brand new kind of USB port.

> "It's based on Apple's cable-free vision of computing"

Unlike older USB ports, the USB 3.1 Gen 1 port is also designed for attaching monitors, projectors and Ethernet cables, as well as for charging the laptop's battery. It uses the new Type C connector cable, which – being identical at both ends – is reversible (see 'What's All the Fuss About?', Issue 431).

However, this means you'll need an adapter to use existing monitors and USB devices and you'll almost certainly need a hub (see The Best Adapters box, page 23) because there's only one USB port. Apple's vision for its laptop involves the use of wireless peripherals, such as mice and monitors, online storage and video streaming. While Wi-Fi printers are common, wireless monitors are still thin on the ground and this might deter all but the most wirelessly advanced. Moreover, it's a shame USB Type C isn't magnetised like Apple's previous charging connector. This handy feature is designed to prevent accidents caused by people tripping over the charging cable. Still, we expect USB 3.1 Gen 1 to become pretty widespread – Google is including it in its new Chromebook Pixel laptop.

One consequence of the MacBook's incredible lean design is its revamped keyboard. The keys are quite flat and provide very little travel, but we could type quickly, accurately and comfortably because there was more than enough feedback (and a satisfying click) when we pressed them. The tiny amount of travel did mean we typed with less force than usual, but we learned to live with this.

Despite how slender the sturdy metal case is, Apple has crammed in a huge battery. It lasted almost 14 and a half hours in our light-usage test and just under seven hours in our more demanding YouTube-playback test (only other Apple laptops exceed these scores). The power- efficient 1.1GHz Core M dual-core processor contributes to the battery's longevity, but this comes at the cost of performance. This laptop is more than fast enough for everyday tasks, but despite the processor's ability to temporarily increase its speed to 2.6GHz and the 8GB of memory, the new MacBook wouldn't be our first choice for very demanding tasks such as editing 4K video or manipulating RAW images.

We had no complaints about the superb colour accuracy, contrast and brightness of the 12in screen. While it has a resolution of 2304x1440 pixels, all these pixels are, by default, used to make text look incredibly sharp rather than display more information. The touchpad is top-notch too. It responds well and is accurate, although there's currently little practical use for its pressure-sensitive feature (for more about this, see our review of the MacBook Pro Retina in Issue 449).

Even if you're willing to buy into Apple's cable-free vision of computing by buying wireless peripherals to use with the new MacBook, you'll still almost certainly need plenty of adapters anyway because the rest of the world still uses USB sticks, wired monitors and other cable-dependent devices. This aside, the MacBook is still an impressively designed ultra-portable laptop, but comparable Windows laptops are available for a lot less.

SPECIFICATIONS

1.1GHz Intel Core M 5Y70 dual-core processor • 8GB memory • 256GB SSD • Intel HD 5300 integrated graphics • 12in 2304x1440-pixel resolution screen • 802.11a/b/g/n/ac • Mac OS X 10.10 Yosemite • 920g (1.1kg with charger) • 13x280x197mm (HxWxD) • One-year warranty www.snipca.com/16558

VERDICT: It won't suit everyone, but if weight and battery life are paramount then this is an ideal laptop for you

★★★★☆

ALTERNATIVE: Asus ZenBook UX305 £650 Shorter battery life and slightly slower performance, but this ultra-portable laptop is cheaper, almost as slim and lightweight, and has more ports

PRINTER | **£50** from www.snipca.com/16689

HP Envy 4500

A sleek, cheap but flawed MFP

The HP Envy 4500 is pretty cheap, but its features match those of a more expensive printer. There's support for wireless networking, automatic duplex (double-sided) printing, and the ability to print from Android and iOS mobile devices.

However, HP has cut a few corners to keep the price down. It takes black and combined three-colour ink cartridges, rather than the individual colour ones. This means you'll need to replace the entire colour cartridge if you drain just one of its colours. It also lacks a touchscreen.

These compromises are reasonable for the price, but mono-print costs are surprisingly high at 4p per page, even using HP's high-capacity XL cartridges. This is balanced out by a low colour-print costs of 5.75p per page, which gives you a reasonable mixed black and colour cost of 9.8p.

The print driver is oversimplified, hiding away a lot of everyday options in the complicated Advanced section. Bizarrely, this includes paper size settings, which is a basic need for anyone looking to print photos, particularly as the Envy range has full support for borderless photo printing, unlike HP's Deskjet range.

On the plus side, there's a lot to like about the Envy 4500 when it comes to print quality. In our test, it produced fairly good black text on plain paper, while colour graphics were excellent. Tones were vibrant, and there was little sign of banding. Photo print quality can't rival that of photo printers, but the results were still pretty good on a variety of coated papers. While black tones initially looked quite pale and bluish, they darkened in the next couple of days to a deeper shade, although never quite reached the quality of prints produced by devices with a dedicated photo black cartridge. Our only other gripe was the paper-transport mechanism, whose grip wheels left tiny tracks in the glossy finish of our A4 black-and-white test print.

The Envy 4500's scanner handled most jobs well, although contrast levels in high-resolution scans were boosted, giving them an artificial look. Printing and copying speeds were fairly leisurely, with standard-quality text emerging at 8.7 pages per minute (ppm). Draft text was a bit quicker at 13.5ppm and sharp enough to use for most correspondence. The Envy's colour-print speeds of 1.8ppm are very slow though. Photos were also sluggish, with six postcard-sized borderless prints taking nearly 27 minutes to print. Scan speeds were also on the slow side, taking two and a half minutes to scan a photo at 1,200 dpi.

It's impressive to find wireless and duplex features in a printer this cheap, but HP has sacrificed performance and individual colour cartridges. Unless wireless networking and duplexing are critical to you, we recommend buying the excellent Canon Pixma MG5550 instead (see review, Issue 410).

VERDICT: A cheap MFP with some useful features, but it's too slow

★★★☆☆

ALTERNATIVE: Canon Pixma MG5550 £50 Lacking in extras, but this similarly priced printer is cheaper to run, faster and has separate colour cartridges

SPECIFICATIONS

1200x600dpi maximum print resolution • 5.2ppm colour and 8.8ppm mono quoted speeds • 1200x2400dpi maximum scan resolution • USB • Wi-Fi • One-year warranty www.snipca.com/16690

The best... Type-C adapters

Google USB Type C-to-HDMI Adapter

£33 from www.snipca.com/16561

If Apple's AV adapter (see below) is overkill, Google's cheaper HDMI-only adapter will do the job if you just want to attach monitors, TVs and projectors to your USB 3.1 Gen 1 -equipped laptop.

IVSO USB 3.1 Type-C 4-Port Compact Hub

£14 from www.snipca.com/16562

A small and lightweight USB hub that lets you connect up to four USB 3.0 devices to your USB 3.1 Gen 1 -equipped laptop.

Google USB Type C-to-USB Standard A Adapter

£11 from www.snipca.com/16560

A slim and simple adapter cable that lets you plug a single USB 3.0 device into a USB 3.1 Gen 1 port.

Apple USB-C AV adapter

£65 from www.snipca.com/16559

Expensive and chunky, but this adapter has an HDMI port, a USB 3.0 socket and a USB 3.1 Gen 1 connection, making it very versatile.

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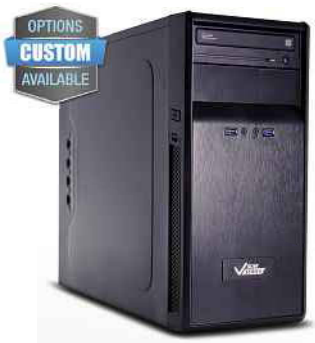
- Windows 8.1

£295 Inc VAT

The V1 is a very capable entry-level system perfect from basic home/office tasks. It's based around the dual-core Intel® Pentium® G3240 processor, 4GB of RAM plus a 500GB hard disk.



Scan V15 Value System Home / Office PC

- Intel® Core™ i5 4460 processor
- 8GB Corsair DDR3 1600MHz memory
- 1TB SATA 6Gb/sec hard drive
- Windows 8.1

£475 Inc VAT

The V15 ups the ante by including a quad-core Intel® Core™ i5 4460 processor, so it makes light work of office and multimedia applications.

Scan G20 Value System Gaming PC

- Intel® Pentium® G3240 processor
- 8GB Corsair DDR3 1600MHz memory
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- 1TB SATA 6Gb/sec hard drive
- Windows 8.1

£479 Inc VAT

Thanks to its dual-core Intel® Pentium® G3240 processor and NVIDIA GTX 750 Ti SSC graphics card the G20i is our most affordable gaming PC. It even includes surround sound!

Scan G30i Value System Gaming PC

- Intel® Core™ i5 4460 processor
- 8GB Corsair DDR3 1600MHz memory
- 2GB NVIDIA GeForce GTX 960 SSC ACX
- 1TB SATA 6Gb/sec hard drive
- Windows 8.1

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- Intel® Core™ i7 4790 processor
- 8GB Corsair DDR3 2133MHz memory
- 4GB NVIDIA GeForce GTX 970 SC ACX
- 1TB Seagate HDD
- Windows 8.1
- 3 Year Premium Warranty

£1025 Inc VAT

The 3XS Gamer 20i is a super-fast gaming PC thanks to its combination of quad-core Intel Core i7 4790 CPU running at 3.6GHz with added Hyper-Threading plus a 4GB NVIDIA GeForce GTX 970 graphics card. These components are installed in an Asus Z97-K motherboard along with a 1TB hard disk.

8.1 Windows Microsoft

Scan 3XS Z97 Vengeance Gaming PC

- Intel® Core™ i7 4790K processor overclocked up to 4.7GHz
- 8GB Corsair DDR3 2133MHz memory
- 4GB NVIDIA GeForce GTX 980 SC
- 250GB Samsung 850 SSD & 2TB HDD
- Windows 8.1
- 3 Year Premium Warranty

£1509 Inc VAT

This high-end gaming system includes a water-cooled Intel Core i7 4790K CPU overclocked up to 4.7GHz plus a 4GB NVIDIA GeForce GTX 980 graphics card, 8GB of 2133MHz Corsair Vengeance Pro DDR3, 250GB SSD for lightning quick gaming loading and a 2TB hard disk.

8.1 Windows Microsoft

3XS Graphite LG157 Gaming Laptop

- Intel® Core™ i7 4720HQ processor
- 8GB Corsair DDR3 1600MHz memory
- 2GB NVIDIA GeForce GTX 960M
- 15.6in 1,920 x 1,080 screen
- 1TB SATA 6Gb/sec hard drive
- Windows 8.1

£880 Inc VAT

The LG157 is a 15.6" mid-range gaming laptop that includes a NVIDIA GeForce GTX 960M graphics card plus an Intel Core i7 4720HQ CPU, up to 16GB of RAM and multiple hard disks and SSDs. The LG157 is ready for next-day delivery and is protected by a 2 Year Premium Warranty.

8.1 Windows Microsoft

3XS Graphite LG1720 Gaming Laptop

- Intel® Core™ i7 4720HQ processor
- 8GB Corsair DDR3 1600MHz memory
- 3GB NVIDIA GeForce GTX 970M
- 17.3in 1,920 x 1,080 screen
- 1TB SATA 6Gb/sec hard drive
- Windows 8.1

£1089 Inc VAT

The LG1720 is a 17.3" high-end gaming laptop that includes a choice of powerful NVIDIA GeForce GTX 970M or 980M graphics card, ensuring silky smooth frame rates in all games. The LG1720 is ready for next-day delivery and has a 2 Year Warranty.

8.1 Windows Microsoft

Scan Computers recommends Windows.

3XS Custom Series

Our 3XS Custom Series is a range of computers designed to offer the best performance for a variety of applications, with a particular focus on games. We build Custom Series PCs to order, so we can configure and tailor make an individual PC just the way you want it. We can also overclock the processor, so you get a faster PC without a substantial increase in price. All 3XS Custom Series PCs are covered by a three year warranty as standard with the first year on-site.

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Some features require Windows 8.1. Update available through Windows Store. Internet access required; fees may apply. Some apps sold separately; vary by market.
Prices correct at time of print and are subject to change.

SOFTWARE | $40 (approx £26) per year
from www.snipca.com/16589

Dashlane Premium

Safe and simple password-management software that works on all your devices

It's safest – if not always practical – to use a unique password for every website you have an account with. Although your browser can store these for you, it's easier and more secure to use a specialised password manager like Dashlane. This software is also described as a 'digital wallet', which means it can also remember your bank or payment-card details and submit them securely to a website to save you the bother.

Dashlane is easy to set up and use – you simply download and install it, set a master password, and follow some onscreen prompts to configure the main features. The master password is known only to you, and it effectively encrypts everything before it's saved on your computer. It should, therefore, be impossible for anyone else to access it. With Dashlane's free version, the encrypted data stays on your PC, but with the Premium version reviewed here, it's also backed up to Dashlane's servers and can then be synchronised to your other PCs and Macs, as well as your iOS and Android tablets and phones.

SYSTEM REQUIREMENTS
Windows XP or later • Mac OS X 10.6 or later • iOS 6 or later • Android 4.0 or later

We installed Dashlane on a PC and an Android smartphone. It automatically imported several existing logins that we'd previously saved in web browsers, although we had to enter some passwords that it couldn't retrieve. You can enter logins manually, otherwise Dashlane will automatically capture them the first time you type them on a website. You can give each password a name and assign it a category (such as email, finance or shopping). To find a particular password you can search by name or category. Once a password is logged with Dashlane, you can visit a site and it will sign you in automatically, whichever device you're using.

Dashlane can also measure how safe your passwords are, based on how easy they are to guess, how long you've used them and whether you've re-used them on multiple sites. Pressing a button by each password in the program's main window replaces the login with a randomly generated and highly secure one. We particularly like the program's Compromised feature, which prompts you to change your password for any site that's been hacked, and any other sites where you've used the same login.

Other features include the ability to share one or more logins or secure notes with trusted friends and family. We also like Emergency, which lets you pre-select friends who may need to access your data urgently. They still need to request access, which is only granted if you don't (or can't) respond within an agreed timeframe.

Dashlane has many good features and is both easy to use and helpful (it warns you when a stored credit card is near to expiry). The free version is excellent if you only have one device and don't need the cloud backup feature. If you have several devices, however, the £26 annual fee for Dashlane Premium is money well spent.

VERDICT: It's easy to use and full of great features. The free version is good, but it's worth paying for Premium

★★★★★

ALTERNATIVE: RoboForm Everywhere $10 (approx. £7) per year A cheaper password manager that can synchronise your passwords across all your devices, although it doesn't have the useful features Dashlane has

WHAT SHOULD I BUY? We solve your buying dilemmas

How do I photograph wildlife remotely?

Q **I like to photograph the birds that visit the bird feeder in my back garden, but my presence tends to scare them away. Is there a remote control I can buy for my camera?**
Sylvia Al-Jabiri

A Most of the cameras made in the past couple of years, apart from cheap compacts, have built-in Wi-Fi and can therefore be controlled wirelessly from your smartphone or tablet – check the manufacturer's specifications for your camera to find out if it has this feature.

If it doesn't, then your options – aside from buying a new camera – are very limited. It's only possible to add remote control to DSLRs because only they have the necessary connectors. All the DSLR manufacturers make their own wired and wireless remotes, but the Hama Wireless Remote DCCS (£45 from www.snipca.com/16704) is our pick. It has a 150-metre range and works with a choice of DSLRs from different manufacturers.

However, the DCCS doesn't give you a live view of what your camera sees, because it only works with its own dedicated remote control and not a smartphone or tablet. The only add-on remote we know of that does is the XSories WeyeFeye (£120 from www.snipca.com/16703), but it only works with a few Canon and Nikon DSLRs.

Do you need advice on what you should buy? Email us at letters@computeractive.co.uk

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A phablet with a big battery at a very reasonable price

Computer active GREAT PICK ★★★★☆

Although Huawei is one of the biggest manufacturers of smartphones and networking equipment in the world, few people have heard of it. Even if you have, chances are you don't know how to pronounce the company's name ("wah-way") and may be under the impression their phones are poor quality. Huawei is attempting to solve both problems by launching new phones under the new Honor brand.

The 6+ phablet has a 5.5in 1080p screen and is available exclusively on Three. At first glance it looks like a giant iPhone 4s, though it's made of plastic not glass and metal. Look closely and you'll see the seemingly humdrum casing has a subtle, classy cross-hatch pattern that shimmers attractively in the light. Moreover, it feels tough and well-made.

> "You'll struggle to find such a cheap phablet with this much going for it"

Despite its low price (for a phablet), the 6+ has an eight-core processor – the 1.8GHz HiSilicon Kirin 925. Although not up to the speed of rival Samsung or Qualcomm eight-core processors (especially when running detailed 3D graphics), it's still very quick and more than fast enough to run most demanding apps.

The touchscreen wasn't perfect, occasionally struggling to keep up with our swipes and prods (especially on web pages with multimedia elements), but it was otherwise very smooth. Colours can look a little washed out unless you turn brightness up to maximum, but text, videos and photos still look great thanks to the screen's sharp detail, good contrast and wide viewing angles.

The 6+ has two SIM card slots, which is unusual. If you're travelling to a country that isn't covered by Three's generous Feel at Home programme (for using your data allowance abroad at no extra cost), then you can slide a microSIM into the provided tray then into the second SIM card slot. Cleverly, this second slot also doubles as a microSD slot.

The huge battery lasted an impressive 44 hours when connected to Three's 4G network in London's West End and used for calls, taking photos, web browsing and GPS, but it does take twice as long to charge as many other phone batteries. The GPS and compass were occasionally slightly off. More disappointing still, callers often sounded so muffled and distant we had trouble understanding them. At least the noise-cancellation feature effectively blocked out the pandemonium of a nearby building site.

Honor claims the pair of eight-megapixel cameras on the rear produce good-quality HDR photos, but the photo quality in general was behind those of more expensive phones. Shots taken in dim lighting were too dark and full of noise, while even in moderately dim conditions they struggled to capture fine textures and skin tones.

It runs Android 4.4 KitKat, rather than the latest 5.0 Lollipop. More irritating is Honor's interface, which removes Android's app drawer (so all your apps are on your homescreen) and offers an unsightly icon style. There are some useful features though, such as the option to turn off notifications for an app straight from the notifications drawer the first time it appears there.

The Honor 6+ isn't perfect, but you'll struggle to find a phablet at this price with such good build quality, battery life, screen and performance. Plus its second SIM slot is an unexpected bonus.

SPECIFICATIONS

5.5in 1920x1080-pixel touchscreen • 1.8 + 1.3GHz HiSilicon Kirin 925 eight-core processor • 3GB memory • 32GB storage • 4G • Nano SIM + MicroSIM • MicroSD • Android 4.4 KitKat • 165g • 150x76x8mm (HxWxD) • One-year warranty www.snipca.com/16556

VERDICT: Not perfect, but lengthy battery life and some great features make this good value

★★★★☆

ALTERNATIVE: Asus ZenFone 6 £225 (without contract)
An even cheaper Android phablet, but build quaity and battery life are no match for the 6+

CAMERA | **£279** from www.snipca.com/16592

Fujifilm XQ2

A pocket-sized camera with superb image quality

Computer active GREAT PICK ★★★★☆

Larger cameras generally capture more light and produce higher-quality images, but not everyone wants to lug a 1kg DSLR around with them. This explains the meteoric rise of compact system cameras (CSCs), which cram DSLR technology into smaller, lightweight casings. And yet, even these are typically too large to slip into a small pocket or handbag.

The Fujifilm XQ2 is what we'd describe as a premium compact camera. Its sensor is physically larger than those commonly found in budget compact cameras, and its lens has a wider aperture to capture more light. Both of these help to boost image quality, particularly in low light, where budget compact cameras suffer heavily from noise. There are other cameras that have similar features, but they also tend to have lots of protruding buttons and dials, chunky handgrips, eyepieces and tilting screens, all of which adds to their weight and bulk. The XQ2 keeps things simple and slender on the outside, and as a result it's far more portable.

> "Image quality is everything, and the big sensor and wide aperture lens deliver on their promises"

The buttons are kept to a minimum, but the XQ2 still has all the options we'd expect. The mode dial offers auto and manual exposure modes, and there's a plethora of advanced settings available in the menus. The camera can save photos in RAW format, so you can get the most out of them by editing them in software such as Adobe Lightroom.

Advanced settings are only useful if you can adjust them before your subject gets itchy feet. The XQ2 doesn't score so well here. There's a customisable E-Fn (function) button that provides access to six settings of your choice, but we'd have preferred a few dedicated buttons for key functions such as the autofocus area and continuous shooting. A ring around the lens and a wheel at the rear of the camera make it easy to adjust certain settings, but while they work well in manual exposure mode, they otherwise feel fairly redundant.

Wi-Fi is built in to transfer photos to smartphones and tablets, meaning you don't have to wait until you get home to upload photos to social-media sites or cloud storage. The apps for Android and iOS are somewhat clunky, however, losing the Wi-Fi connection without warning when navigating to certain areas of the app. They also lack the ability to let you use a smartphone or tablet as a remote control, even though other Fujifilm cameras have this feature.

Video recording is another area with room for improvement. The XQ2 can shoot 1080p video, but details look a little coarse, low-light clips suffer badly from noise and the autofocus is temperamental. Many cameras at this price are as proficient at creating videos as photos, but this isn't one of them.

The XQ2 can rattle off shots in quick succession. In normal mode it took just half a second between shots. Switching to continuous mode, it peaked at 10.8 frames per second (fps) in our tests. This only lasted for 11 shots, but after that it still managed an impressive 3.8fps. This gives you plenty of choice when you come to pick the best shot later.

Image quality is what the XQ2 is all about, and the big sensor and wide-aperture lens deliver on their promises. There's a clarity and smoothness to details that's often missing from photos taken with cheaper compact cameras and this high quality is especially noticeable in photos taken in dim lighting. However, zooming in causes the aperture to shrink significantly, reducing the amount of light that reaches the sensor. For best quality in low light, it's therefore best to avoid zooming in. Colours are faithfully reproduced, and the camera responds intelligently to moving subjects to reduce blurring.

Extra features such as Wi-Fi and video capture could be better, and the controls are average. However, the XQ2's image quality is excellent for a pocket-sized camera, and it's attractively priced too.

SPECIFICATIONS

12-megapixel sensor • 4x zoom (25-100mm) • 3in screen • accepts SD, SDHC and SDXC storage cards • 208g • 60x108x33mm (HxWxD) • One-year warranty www.snipca.com/16591

VERDICT: Not perfect, but it's slim, fast and has excellent image quality

★★★★☆

ALTERNATIVE: Samsung NX Mini £300

Incredibly slim for a camera with interchangeable lenses, and image quality is also excellent

PRINTER | **£60** from www.snipca.com/16691

HP Photosmart 5520

Looking for a photo printer? This isn't for you

The HP Photosmart 5520 is one of HP's cheapest photo printers. Despite its price it comes with individual colour cartridges (rather than a single combined colour tank), built-in Wi-Fi and a touchscreen.

Compromises have been made on paper handling, however, which is on the basic side. The input tray lacks a dust cover and there's no output tray – printed pages land just above the stack of fresh paper. There's only a thin bit of plastic to prevent them falling on to your desktop. To our surprise, however, this worked reasonably well at keeping our multi-page print jobs in order, at least for the first 20 pages.

> "This is a complete non-starter as a photo printer"

But annoyingly, if you want to configure something as simple as borderless photo printing, you'll have to plunge into the settings' confusing Advanced tab. This would benefit from a clearer layout and more information about the available options.

We're not bowled over by the annoying scanner software, either. By default, it sharpened images excessively in the scanning process, introducing a number of distortions. On top of that, scan speeds were slow – a 300 dpi A4 scan took 38 seconds, a 600dpi 6x4in scan took 46 seconds and a 1,200dpi photo scan took two minutes and 37 seconds.

On the other hand, plain paper document printing was excellent, with clear, sharp text on our mono prints, and attractive text and illustrations on our colour documents. Even draft text looked good, with only a slight jagged quality to some letters. Print speeds were a quick 13.4 pages per minute (ppm) for mono text and 3.8ppm for colour.

Disappointingly, photo quality was very poor, particularly on anything containing large swathes of dark colours. A night sky was rendered as a washed-out greyish blue, while other low-lit prints lacked contrast and detail. Red and yellow tones were pleasingly bright though, and the prints were sharp, but overall photo quality just wasn't good enough.

At least print costs are low, with a total cost of 9.1p per page of mixed black and colour document printing, and 2.7p per mono page. Photos printed on HP's Advanced Photo Paper also proved to be relatively cheap, with a 6x4in print costing 22.2p and an A4 print 85.3p. However, the ink makes up a surprising portion of this cost – over 11p in the case of the 6x4in photo and around 47p for A4.

The Photosmart 5520 is not bad as a general-purpose MFP, but it's a complete non-starter as a photo printer. You're much better off with Canon's excellent Pixma MG5650 (see review, Issue 436).

VERDICT: Although it's not bad for some print jobs, this MFP produces some of the worst photos we've seen

★★★☆☆

ALTERNATIVE: Canon Pixma MG5650 £80 A little more expensive and not a dedicated photo printer, but its photo prints are still far better than those you'd get from the 5520

SPECIFICATIONS

1200x600dpi maximum print resolution • 8ppm colour and 11ppm mono quoted speeds • 1200x2400dpi maximum scan resolution • USB • Wi-Fi • One-year warranty

www.snipca.com/16692

COMING SOON

SUMMER 2015

The Asus Chromebit is a Chrome OS PC the size of a USB stick that plugs into your monitor's HDMI port. It will cost $100 in the US with UK pricing still to be confirmed.

AUTUMN 2015

According to the latest rumours iOS 9 will have a new search feature called Proactive, which will also be designed to rival Android's Google Now. Reports say it will also have a Home app for managing smart home-based devices such as thermostats and lights.

AUTUMN/WINTER 2015

The next generation of Windows Phones running Windows 10 will be able to act as full-blown PCs when connected to a monitor or TV.

WINTER 2015

A leaked patent shows a Samsung design for an Android phone that turns into a Windows laptop when plugged into a keyboard and screen dock. If Samsung presses ahead with this hybrid, expect to see a release before Christmas.

NEXT ISSUE

ON SALE 24 June

Lenovo B50-30
A full-size Windows laptop for under £200

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Our pick of products that have won the Buy It award

LAPTOP

Asus X555LA-XX290H
£300 from www.snipca.com/16158
Tested: Issue 446

Asus has made all the right choices with this budget Windows 8.1 laptop. Its comfortable keyboard, fast performance, respectably lengthy battery life and bright screen are all the more impressive given its low price.

ALTERNATIVE Asus Chromebook C200 A cheap Chrome OS ultra-portable laptop with a bright screen, lengthy battery life and a great keyboard. £193 from www.snipca.com/16705

DESKTOP PC

Palicomp AMD Kaveri Evolution
£500 from www.snipca.com/16354
Tested: Issue 422

A budget PC with a fast overclocked processor. It also has good upgrade potential and comes with a surprisingly good 24in monitor, as well as a quality USB keyboard and mouse.

ALTERNATIVE: Chillblast Fusion Rhino A very powerful and compact PC sold without a keyboard, mouse or monitor. £929 from www.snipca.com/15252

TABLET

Apple iPad Mini 2
£239 from www.snipca.com/14467
Tested: Issue 416

Apple's mini tablet from 2013 is now available at an even lower price. The only thing it lacks compared with the Mini 3 is a fingerprint sensor and the option of lots of built-in storage. Otherwise, it's an absolute bargain.

ALTERNATIVE: Apple iPad Air 2 A thin and lightweight 10in tablet with a fingerprint reader, an excellent screen and peerless selection of apps. £399 from www.snipca.com/16717

PHONE

Motorola Moto G 4G (second generation)
£150 (without contract) from www.snipca.com/16160
Tested: Issue 436

Moto G 4G has been updated with a 5in screen, 4G and a microSD card slot. The 3G version has dual SIM slots.

ALTERNATIVE: Apple iPhone 5s An excellent smartphone with a great camera and performance. £459 without a contract from www.snipca.com/10171

DIGITAL CAMERA

Panasonic Lumix DMC-GF6
£219 from www.snipca.com/16355
Tested: Issue 405

This compact, interchangeable-lens camera is small and reasonably priced, yet it has well-designed controls, a wide range of available lenses and shoots excellent quality photos. The GF6 really is unbeatable value.

ALTERNATIVE: Sony A5000 A rival CSC with better low-light performance, although its controls and range of available lenses aren't quite as good. £251 from www.snipca.com/15854

E-READER

Kobo Aura H2O
£140 from www.snipca.com/15490
Tested: Issue 435

A waterproof e-reader with an easy-to-read, high-resolution touchscreen that's easy on the eyes and great for reading in the bath. There's no 3G version, but, unlike the Amazon Kindle, you can buy ebooks from independent retailers that use the ePub format.

ALTERNATIVE: Amazon Kindle Voyage The best Kindle yet, with a sharp, extremely responsive touchscreen and easy-grip design. £169 from www.snipca.com/14451

SECURITY SOFTWARE

Kaspersky Internet Security 2015

£17.99 from www.snipca.com/14212
Tested: Issue 437

Kaspersky Internet Security 2015 has won our past four antivirus tests – an unprecedented set of results. The 2015 edition is available at an exclusive reader discount on our Software Store. Go to the link above for a one-device licence, or buy a three-device licence for just £39.99 at www.snipca.com/14221

ALTERNATIVE: Avast Free Antivirus Almost as good as Kaspersky, but sometimes blocked legitimate software Free from www.snipca.com/16493

PHOTO EDITING

Adobe Photoshop Lightroom 5

£110 from www.snipca.com/16356
Tested: Issue 402

Lightroom is a consistently elegant, powerful and fast photo-management program packed with sophisticated features. If you want to keep on top of your photos and make them look great, there's no better software to do it with.

ALTERNATIVE: Adobe Photoshop Elements 13 A fast and polished photo-editing program with excellent advanced editing tools. £64 from www.snipca.com/16357

PC MONITOR

Dell UltraSharp U2412M

£205 from www.snipca.com/15271
Tested: Issue 378

An exquisite monitor with superb image quality, an adjustable stand, a high resolution and even a built-in USB hub. It costs a little more than other monitors, but it's money well spent. It's easily the best value monitor we've seen and is the one by which all others are judged.

ALTERNATIVE: AOC i2360PHU A good quality budget 23in monitor that's easily adjustable and has a built-in USB 2.0 hub too. £142 from www.snipca.com/16706

SECURITY CAMERA

Y-cam HomeMonitor HD

£147 from www.snipca.com/11646
Tested: Issue 420

A home-security camera that's well priced and easy to set up. Plus, it has great picture quality, useful apps and there's no need to subscribe to any extra services. It's a worthy successor to the original HomeMonitor, our previous favourite security camera.

ALTERNATIVE: D-Link Wireless N Day & Night Camera A good-value security camera with excellent night vision. £74 from www.snipca.com/15275

ROUTER

Trendnet TEW-812DRU

£110 from www.snipca.com/15855
Tested: Issue 427

An incredibly fast 802.11ac router that's also one of the cheapest we've seen. It's superb and it's the router to buy if you're ready to make the jump to 802.11ac.

ALTERNATIVE: Linksys WRT1900AC More expensive, but even faster and with loads of features too. £200 from www.snipca.com/14950

NAS

Synology DiskStation DS215j

£140 from www.snipca.com/16187
Tested: Issue 449

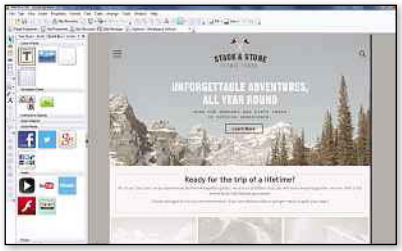
This two-drive NAS enclosure has it all – fast performance, easy configuration and plenty of extra features. Its only flaw is that installation is a little fiddly – but if you want quality network storage, then this is the obvious choice.

ALTERNATIVE: Synology DS414j A four-drive NAS that's generally fast, easy to set up and use. £260 from www.snipca.com/16707

WEB DESIGN

Serif WebPlus X8

£90 from www.snipca.com/15278
Tested: Issue 443



WebPlus X8 is one of the best programs available for designing a website without having to write a line of code. It comes with lots of templates, with more available for purchase if you need them. It also has lots of specialist tools for building a small business website.

ALTERNATIVE: JimdoPro This browser-based program for creating websites is slick and feature packed, but lacking in high-quality templates. £60 a year from www.jimdo.com/pricing

SMART TV

PRICE DROP

Samsung UE40H5500

£330 from www.snipca.com/16544
Tested: Issue 446

A 40in smart TV with great picture quality and apps for all the terrestrial TV catch-up services. It has plenty of extras too, such as recording to USB storage, playing media files stored on a NAS or USB stick and plenty of HDMI ports.

ALTERNATIVE: Sony KDL-42W705B Excellent image quality, stylish looks and a 42in screen. £400 from www.snipca.com/16496

COMPETITION

Win an Acer Revo One RL85 mini PC

Winner of a four-star Great Pick award in Issue 449, the stylish Acer Revo One RL85 mini PC is a small but powerful computer. It runs Windows 8.1, and is powered by the Intel Celeron 2957U dual-core processor. It comes with 4GB of RAM and has a 2TB hard drive, though it's easy to add more storage. To enter, email your address to **cacomp@dennis.co.uk** by midnight 23 June.

The **Acer Revo One RL85** is on sale now, with prices starting at £230. For more information on Acer's range of mini PCs visit www.snipca.com/16596. You can also follow Acer on Twitter @Acer.

MULTIFUNCTION PRINTER

Canon Pixma MG4250

£50 from www.snipca.com/12457
Tested: Issue 382

This budget multifunction printer (MFP) isn't the fastest available, but it's cheap to buy and inexpensive to run. Just as importantly, both prints and scans look great. Unless you need faster print speeds or separate ink tanks for each colour, this MFP is the one to buy.

ALTERNATIVE: Epson Expression Photo XP-760 A MFP aimed at photographers with an excellent scanner and peerless photo print quality. £114 from www.snipca.com/16497

SOLID-STATE DRIVE

Crucial BX100 1TB

£285 from www.snipca.com/16017
Tested: Issue 445

A blindingly fast, high-capacity SSD at a lower price than ever before. If you've been put off buying a SSD because of the cost, then now is finally the time to take the plunge.

ALTERNATIVE: Samsung 850 Pro 256GB An even faster SSD, but it is much more expensive per gigabyte. £111 from www.snipca.com/16498

HOMEPLUGS

Devolo dLAN 1200 Triple+ Starter Kit

£119 from www.snipca.com/15369
Tested: Issue 444

Devolo's latest HomePlug adapters are the fastest we've ever seen. They're also well designed too, with a passthrough socket so you can still power another device and the design should avoid skirting boards and other obstacles.

ALTERNATIVE: Devolo dLAN 650 Triple+ Starter Kit These HomePlug adapters have a sensible, space-saving design as well as three Gigabit Ethernet ports for connecting devices to your network. £77 from www.snipca.com/16019

WI-FI

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dLAN® 500 WiFi Starter Kit

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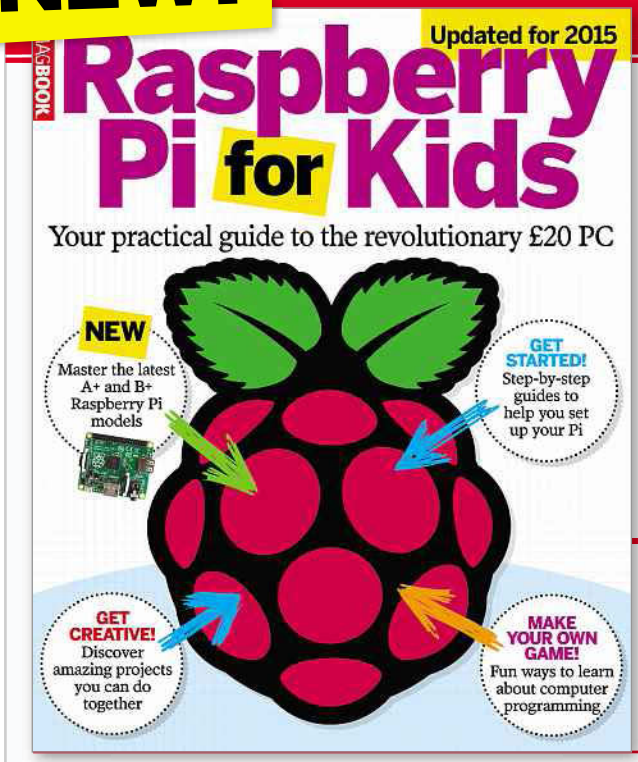

RASPBERRY PI FOR KIDS

The Raspberry Pi is the incredible £20 British computer that's taking the world by storm. It's ideal for children of all ages to experiment, play games and learn valuable skills. We've updated this 148-page book for 2015 to include instructions on mastering the new Pi models (A+ and B+), helping children learn the coding skills needed to excel at the new school curriculum. We take you step by step through the basics of setting up and configuring the Pi and introduce many fun projects for families.

BUY IT NOW FROM AMAZON
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THE DEFINITIVE GUIDE TO GOOGLE HIDDEN TOOLS

Inside the 164-page *The Definitive Guide to Google Hidden Tools*, we lift the lid on Google's most popular tools to reveal more than 430 ways to make them even more efficient, useful and tailored to your needs. These include clever new add-ons for Chrome, amazing free apps for Android and stunning sights in Google Maps.

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Workshops & Tips

14 pages of easy-to-follow workshops and expert tips

35 Sharpen your blurry videos for free
38 Fix Office programs with new Microsoft tool
40 Send photos from tablet to PC without email
42 Block junk when installing programs

PLUS

43 Readers' Tips
44 Phone & Tablet Tips
46 Make Windows Better
47 Make Office Better
48 Secret Tips For... Autoruns

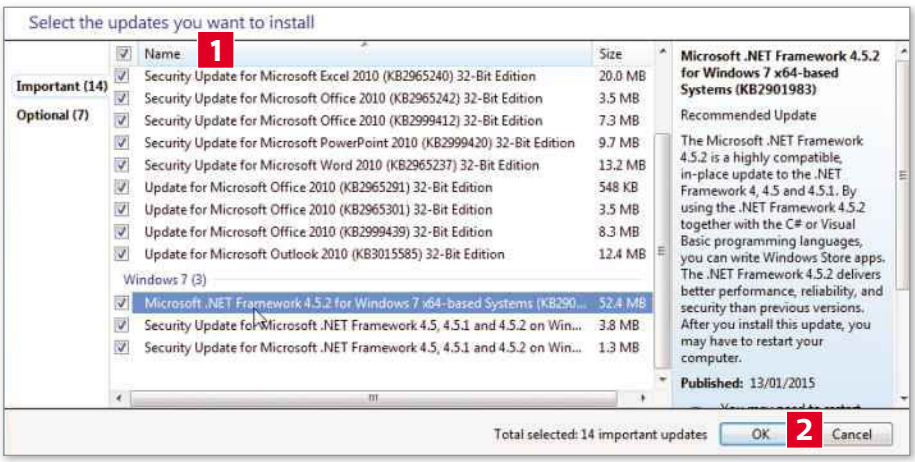
Sharpen your blurry videos for free

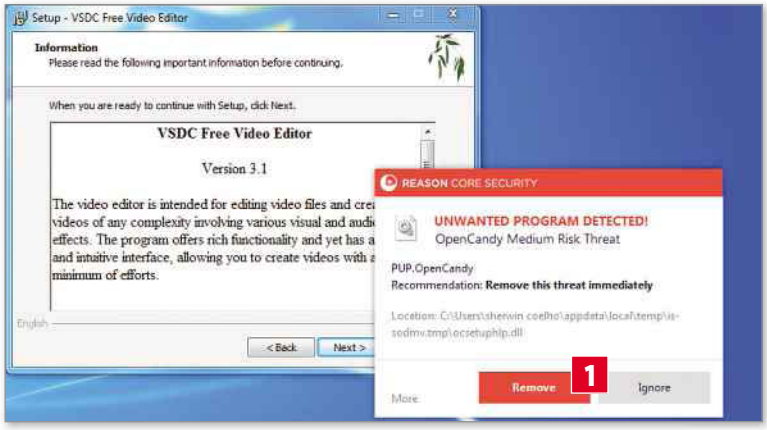
What you need: VSDC Free Video Editor; Windows Vista, 7, 8 or 8.1
Time required: 45 minutes

A common problem when shooting a video is that sections of your footage can appear blurred. This is because sudden jolts or swift movements mean the camera needs to readjust its focus.

We'll show you how to apply VSDC Free Video Editor's new Sharpen effect to blurred footage. We'll also explain how to merge multiple videos using transition effects, and add captions to them.

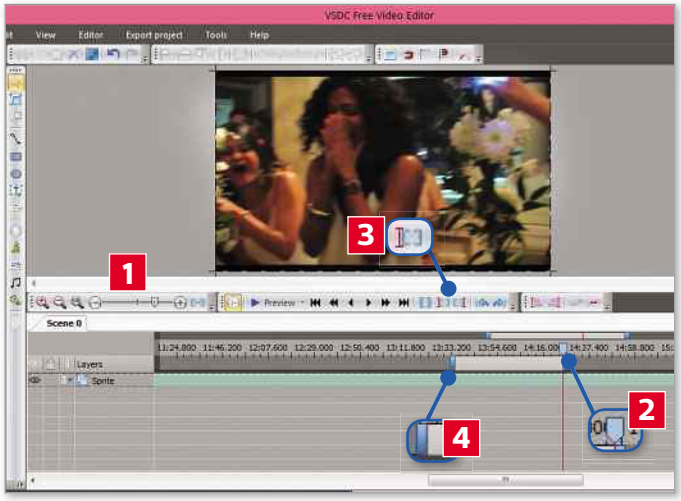
STEP 1 Before downloading VSDC Free Video Editor, you should ensure your PC has all the latest system updates otherwise VSDC won't work. To do that, open the Start menu, type windows update and press Enter. If you see a link saying 'XX important updates are available', click it, then tick Name at the top 1 to select all the pending updates. Next, click OK at the bottom 2, then click the 'Install updates' button to update your PC. You may need to restart your PC once that's done.





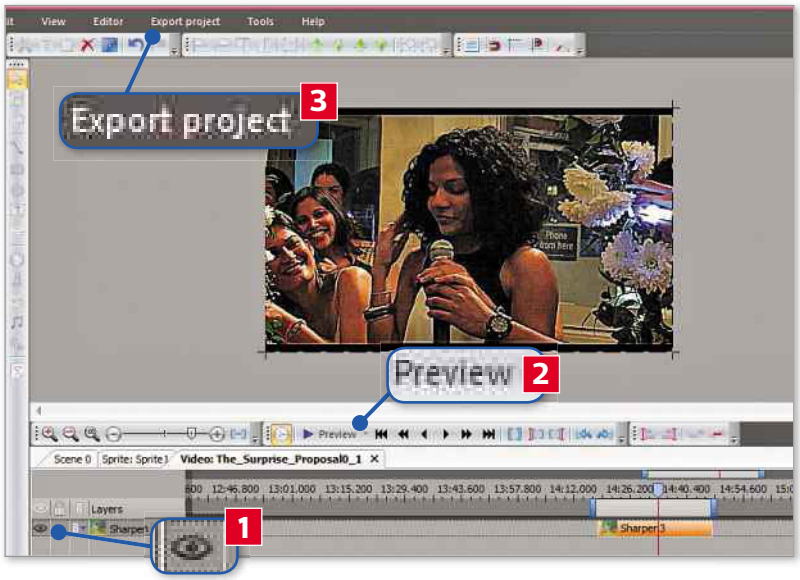
STEP 2 VSDC Free Video Editor gives you the option to untick unwanted junk during installation. However, a safer way to block this is to first install Reason Core Security (see our Workshop on page 42). Now go to www.snipca.com/16779 and click the Download Video Editor button. Click the setup file, run it and follow the instructions. If you see a notification from Reason Core Security prompting you to remove any bundled junk, simply click Remove 1, then follow the installation steps to install and launch VSDC Free Video Editor.

STEP 3 Click the 'New project' link 1, give your project a name 2, then click Finish 3. Next, click the 'Add files' button (halfway down on the left), navigate to the video you want to edit, then click Open. Now click the Apply Settings button at the bottom right. You'll see the video added to the new VSDC timeline editor (see screenshot in Step 4). This includes the video preview screen at the top, the video controls (playback, forward, rewind and so on) in the middle and a timeline slider at the bottom.



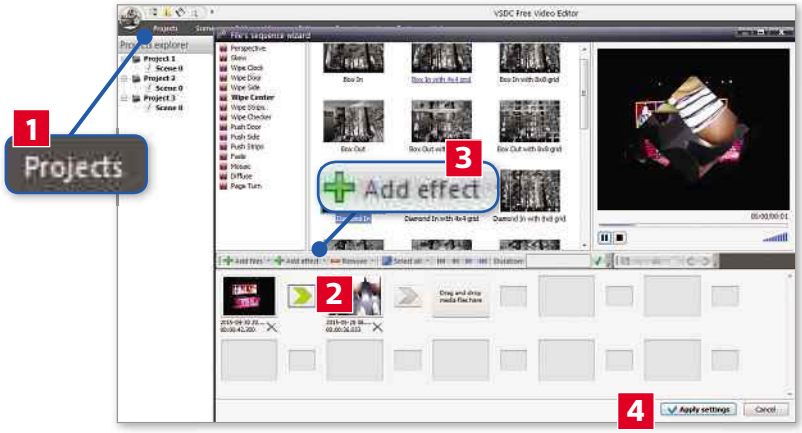
STEP 4 Use the zoom slider 1 to magnify your timeline, then use the scroll bar at the bottom to navigate to the section of your video you want to sharpen. Next, click and drag the timeline pointer 2 to the start of the blurred section, then click the In marker 3 to mark this on the timeline 4. Now move the pointer to the end of the blurred section and click the Out marker (to the right of the In marker). If you want to sharpen the entire video, simply click and drag these In and Out markers to either end of your timeline.

STEP 5 To sharpen the selected portion, you first need to make a few tweaks. First, right-click Sprite (in the Layers column to the left of the timeline), then click 'Edit effects', right-click Video, then click 'Edit effects' again. To apply the Sharpen effect, click the Editor tab 1, the 'Video effects' dropdown menu 2, move your cursor to Filters, then click Sharpen 3. In the window that opens, ensure 'By work area' is selected, then click OK to add the effect.



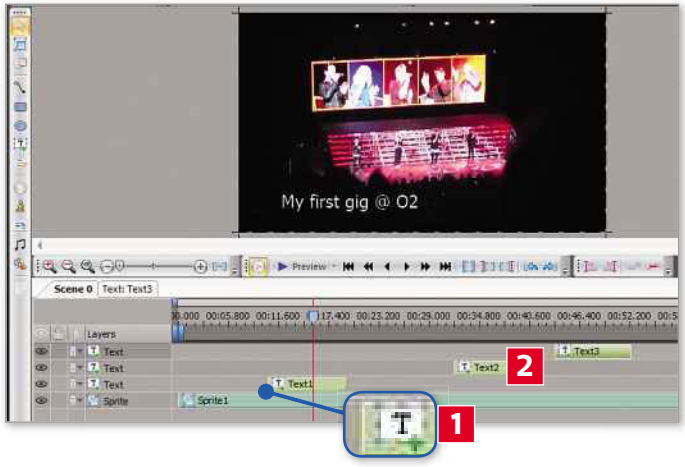
STEP 6 Click the eye icon 1 to switch the Sharpen effect on and off to see how much clearer your video is. Repeat Steps 4 and 5 to other blurred sections of your video. You can undo any mistakes by pressing Ctrl+Z. Click the Preview button 2 to watch your edited video in a new pop-up window. To save your edited video, click the 'Export project' tab 3, the 'Change name' button on the right, rename your video and click Save.

STEP 7 The video quality is set to High by default, but you can set it to Higher using the dropdown menu 1. Next, click the 'Export project' tab again. Use the options at the top left to burn your video to a DVD or watch it on your mobile. The group of options to the right of these let you convert your file to a choice of formats 2. Click 'Convert files' 3 when you've made your selection. You'll see the file playing (in slow motion) in the preview pane as it's being converted. The conversion progress is shown on the top (pink) bar. When it's finished, a 'Conversion completed' notification will pop up on your screen.



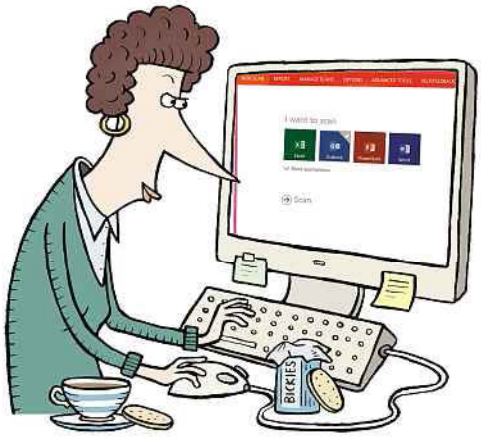
STEP 8 We'll now show you how to add a transition effect between two videos before adding a caption. Click the Projects tab at the top left 1, click 'New project', name your project and click Finish. Now drag and drop both videos into the bottom pane. Next, click the arrow 2 between the two video thumbnails. Click one of the transition effect categories on the left, then one of the effects within that category to preview the transition in the top-right pane. Select the effect you want, click 'Add effect' 3, then click 'Apply settings' 4.

STEP 9 To add a caption to your video, move the pointer on the timeline to where you want it to first appear, click the Textbox symbol 1, then OK. Now move your cursor to the preview pane, then click and drag your caption box to position it and type whatever you want to see over 'Enter text'. To reformat its font style, size and colour, use the 'Text object settings' section on the right 2. Clicking any of its fields will reveal a box with three dots 3. Click this to see relevant options.



STEP 10 To set the duration of the caption, simply drag any of the caption box's edges along the timeline 1 to increase/decrease it. You can click and drag the box 2 to reposition it wherever you want on your timeline. Add as many of these captions as you want. Again, click Preview to make sure you're happy with your transition and captions. Finally, repeat the end of Step 6 and the whole of Step 7 to save (export) your video file. ●

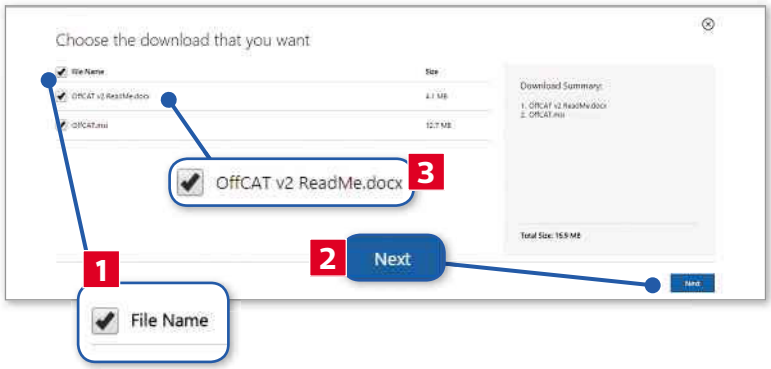
Fix Office programs with Microsoft's new tool

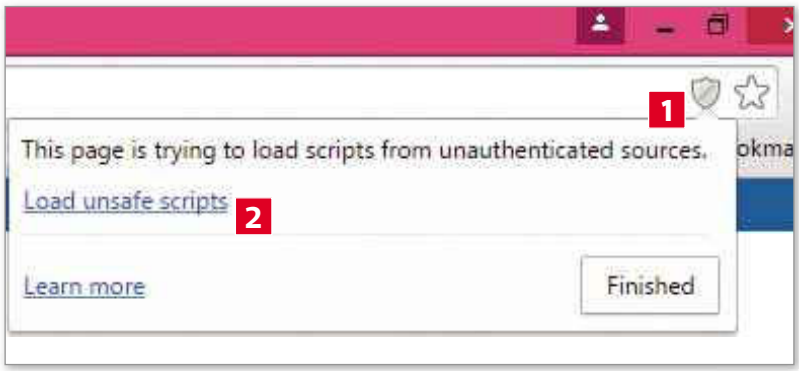


What you need: Microsoft Office Configuration Analyzer Tool; Office 2007, 2010 or 2013; Windows Vista, 7 or 8 **Time required:** 30 minutes

If you notice any of your Office programs acting up – for example, regular crashes or links not working – it may be because the program's settings (configuration) have been changed. Using Microsoft's new free Office Configuration Analyzer Tool you can scan all your Office programs to get a detailed report of any problems detected. It then lets you download a tool which will fix the problem or direct you to a website that can help.

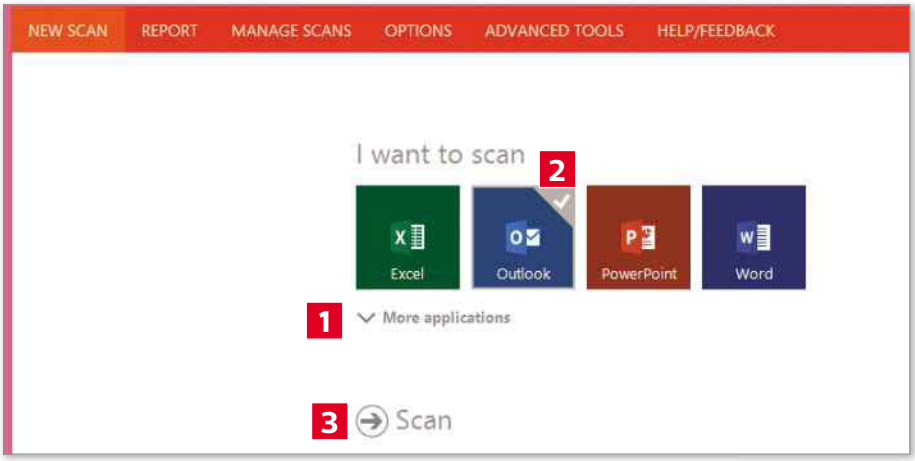
STEP 1 To download the Microsoft Office Configuration Analyzer Tool (known as OffCAT), go to www.snipca.com/16620 and click the red Download button. Next, tick File Name 1 (to select both files), then click Next 2 to download them. If the download doesn't start within a few seconds, make sure your browser isn't blocking it. Some browsers block multiple, simultaneous downloads as a security measure to stop programs trying to smuggle in additional programs. However, OffCAT is completely safe. The second download is a Word file 3 that contains useful instructions – more on that later.



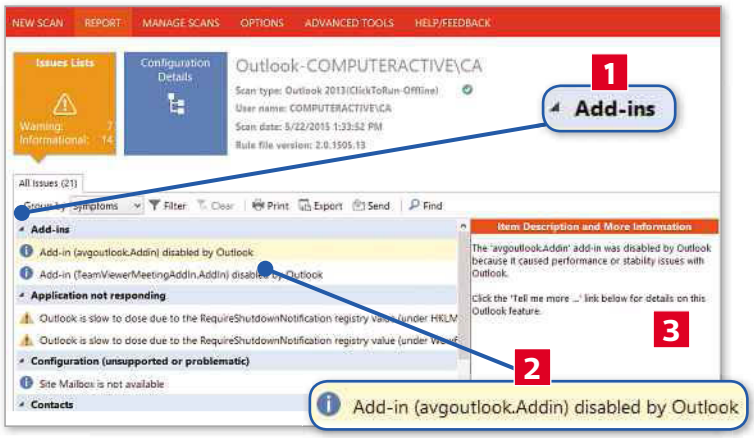


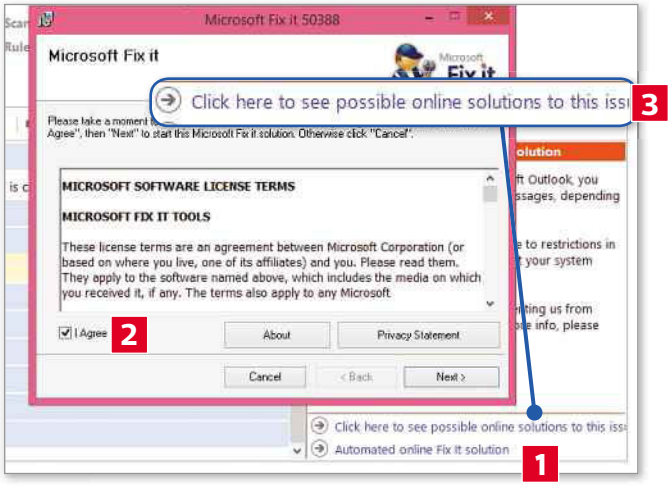
STEP 2 If your browser is preventing the download, we'll show you how to overcome this in Chrome and Firefox. In Chrome, click the shield icon 1 at the top right of the URL bar, 'Load unsafe scripts' 2, then Allow on the pop-up that appears. In Firefox, click the shield icon at the top left, the Options dropdown menu, then 'Disable protection for now'. Both files should now start downloading to your PC.

STEP 3 Next, click the downloaded OffCAT.msi file, tick the T&C box, click Next (twice), Install, then (when that's done) Finish. OffCAT will launch and automatically begin updating. After that's done, you'll see options for Excel, Outlook, PowerPoint and Word. Click the 'More applications' dropdown menu 1 to see OneNote. Open the first program you want to scan. In OffCAT, click that program's icon 2 (you'll see a tick on it), then click Scan 3. If you're scanning Outlook, you'll need to enter your Outlook password when prompted.

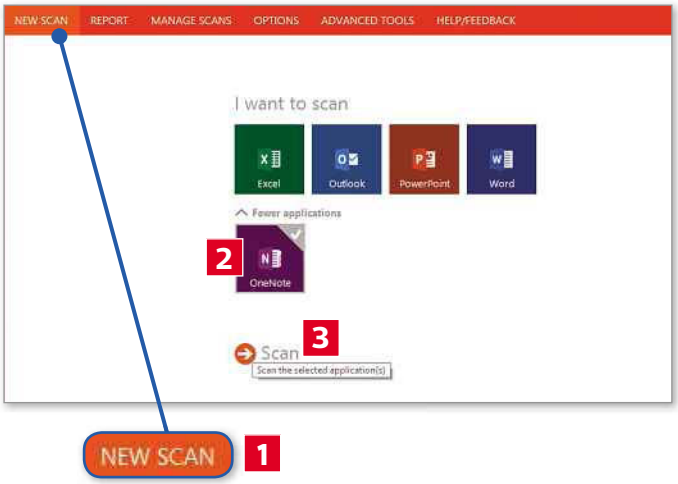


STEP 4 After the scan has finished, you'll see its report. In the bottom panel, you'll see a list of all the problems (grouped according to symptoms) with dropdown menus next to them. Click the small arrow 1 to open the dropdown menu, then click a specific problem 2 to read more about it in the 'Item Description and More Information' column 3.





STEP 5 At the bottom of the column, you'll either see one of two links or (in some cases) both. If you see the 'Automated online Fix It solution' link 1, then click it to download the free Microsoft Fix It tool. Open the file, tick I Agree 2, click Next and follow the steps to install it. After the fix has been applied, you'll be prompted to restart your PC. Click No because it's better to fix problems in all your programs, then restart. If you see the 'Click here to see possible online solutions to this issue' link 3, click it to open a Microsoft technical support web page where you'll find suggested fixes for that particular issue. Sometimes the Word file that you downloaded (with OffCAT) may contain simpler solutions, so it's worth checking to see if it provides an easier fix.



STEP 6 Now click the New Scan tab 1, click the second Office program you want to scan 2, then Scan 3. Repeat steps 4 and 5 to identify and fix problems. Repeat these steps for all the programs you use. When you finish fixing the last program, click Yes to restart your PC, then check whether all the problems have been fixed. To launch OffCAT after restarting, press the Start button, type offcat in the search menu, then press Enter to open it.

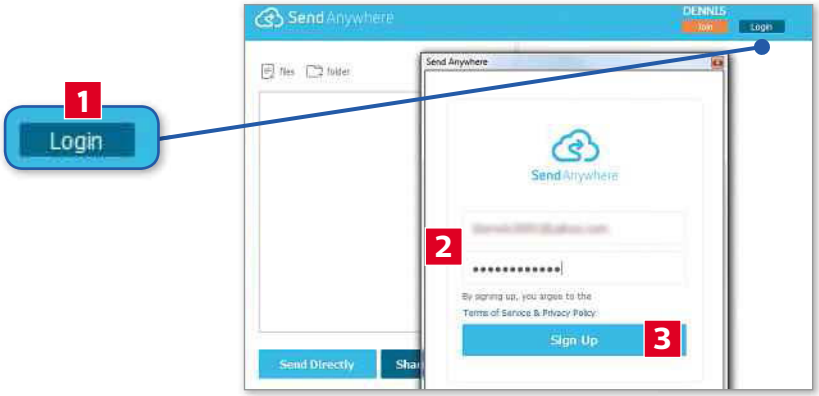
STEP 7 Now click the Manage Scans tab 1 to see a list of all your scans. You can sort your scans by Date or Application (program) by clicking those links at the top right. Click the dropdown menu beside the relevant program for more options. To see your scan report again, click 'View report' 2. You can even email the scan report (using your default email program) by clicking Send 3. By default, your scan reports are grouped by symptoms. If you'd rather group them by severity, then click the Options tab 4, the 'Groups issues lists by' dropdown menu, then select Severity.

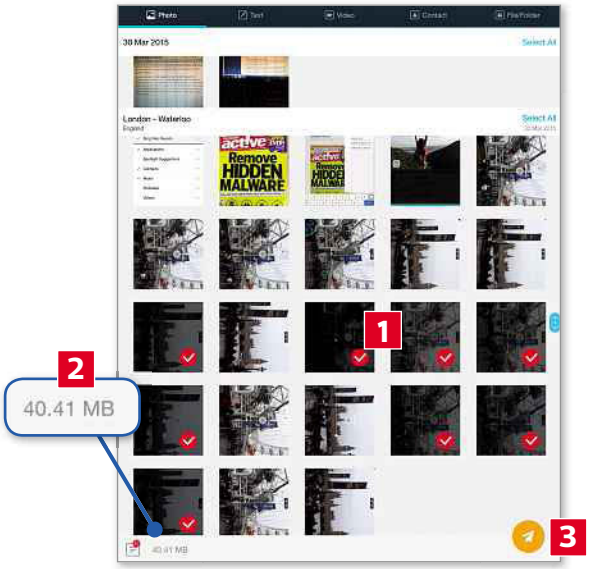
Send photos from tablet to PC without email

What you need: Send Anywhere; Windows 7 or 8; Android or iOS (phone or tablet)
Time required: 20 mins

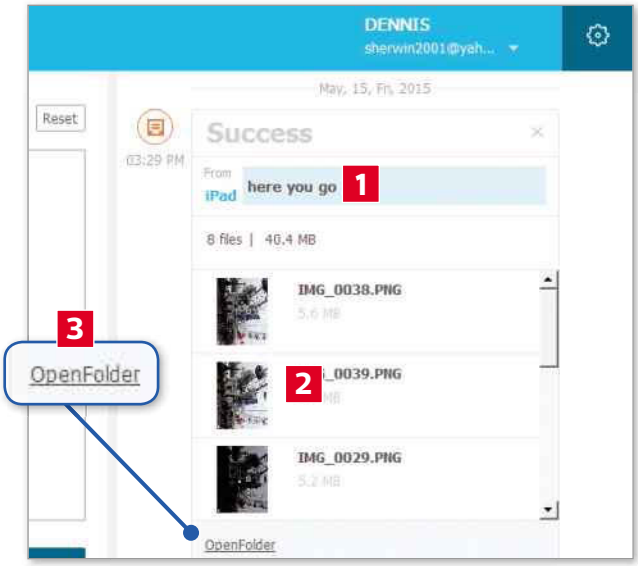
If you think email is the fastest way to send files from your tablet or phone to your PC, think again. Send Anywhere is a free program, app (Android and iOS) and Chrome extension that lets you send photos and videos from one device to another within seconds. There's no restriction on the number of files you can transfer and all your files are sent securely. You can even transfer files without creating a user account by using a secure six-digit key.

STEP 1 First, install the free PC program by going to www.snipca.com/16567 and clicking the orange Download Version button. Next, click the downloaded setup file, Run, Yes, Next, accept the T&Cs, click Next again (three times), tick 'Create a desktop icon', click Next, then Install. When that's done, click Finish. Creating a free account makes transferring files even quicker. To do this, open Send Anywhere, click Login 1, then Sign Up at the bottom. Now enter your email address 2 and a password, then click Sign Up 3.

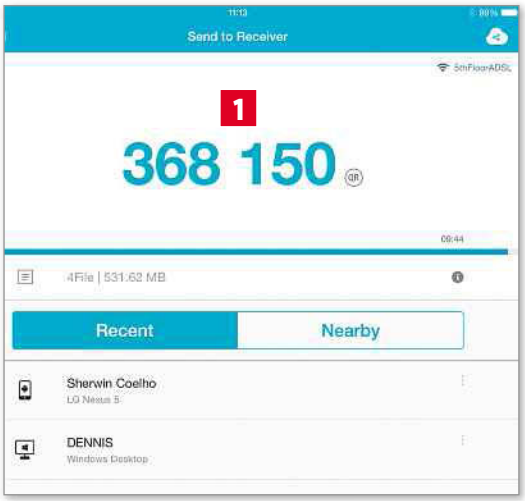




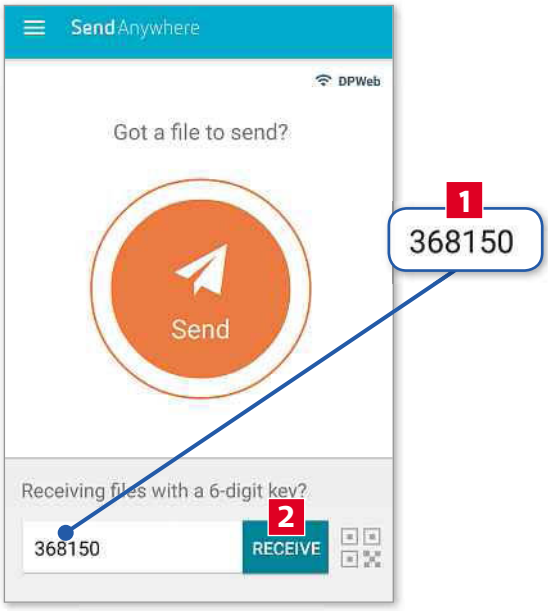
STEP 2 Now install the free app on your phone or tablet (Android: www.snipca.com/16568; iOS www.snipca.com/16569). We're using an iPad but the process is the same on other devices. Open the app and swipe through the tutorial screens. On the final screen, tap 'Log in' and log in using the account you created in Step 1. To send photos, tap the large Send icon, then OK (to let the app access your photos). Now tap all the photos you want to send (red ticks will appear on them) 1. You'll see the total size of your files 2. Next, tap the orange (paper plane) send icon 3.



STEP 3 Now tap the Nearby tab to see your PC listed, then tap your PC's name. You can type a message 1 to accompany the files (optional), then tap OK. Next, go to the Send Anywhere PC program and click Accept. The files (and message) will now transfer to your PC (we sent 40MB of photos in five seconds). Double-click any file 2 to open it in your PC's default photo-viewer program. To access all the files, click the small OpenFolder link 3. This opens your Downloads folder, where the files are saved.



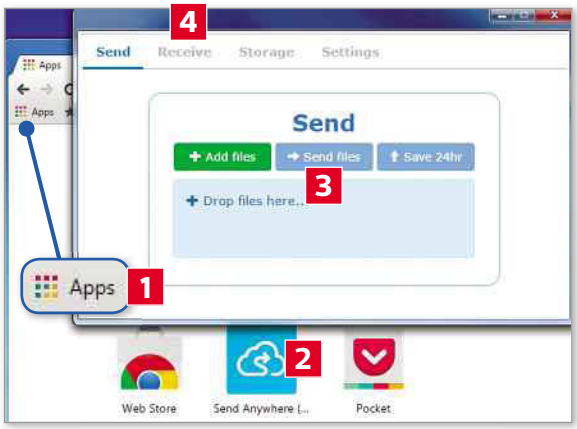
STEP 4 We'll now show you how to send videos to someone else on their PC, or phone or tablet. First, they will need to install the free PC program and/or mobile app (following Steps 1 and 2). However, they don't need to create an account (unless they want to); instead they can use the 'Start without login' option on the Login screen. To send videos, go to your mobile device, then tap the big Send icon. Next, tap the Video tab at the top (if you're using a phone, swipe across the Photos tab to see this), then tap to select the videos you want to send. Next, tap the orange Send icon at the bottom right. You'll see a six-digit key on your screen 1. Text or email this key to the recipient of your video files.



STEP 5 The recipient will need to open their PC program or mobile app, type the six-digit key in the Receive field 1, then click/tap Receive 2. The files will automatically start transferring to their PC/mobile device. Both you and the recipient will see the progress of the file transfer (as a percentage). Once the videos are transferred, the recipient can play them by double-clicking (PC) or tapping (phone or tablet) the files. The files are stored in the Downloads folder on their PC and in the Gallery on their phone or tablet.

STEP 6 It's just as easy to send files from your PC to your phone or tablet. First place the files you want to send into a folder on your Desktop. In Send Anywhere, click the '+folder' icon 1, navigate to the folder on your Desktop, click the Select Folder button, then click Send Directly 2. The items will appear in the section on the right 3 with a six-digit key. Now open the app on your device, type the six-digit key in the field, then tap Receive to start the transfer.

STEP 7 Finally, we'll show you how to use Send Anywhere's free Chrome extension to transfer files. Open the Chrome browser on your PC, go to www.snipca.com/16570, click the blue 'Add to Chrome' button, then click Add. Now, whenever you want to send files, click the Apps icon 1 in your Chrome Bookmarks Bar, then click Send Anywhere 2 to launch its pop-up window. To send files, drag and drop them into the window, click 'Send files' 3, then email the six-digit key to the recipient. You can also receive files sent to you using this extension, provided you have the six-digit key. To do that, click the Receive tab 4, type the key, then click 'Receive files'.

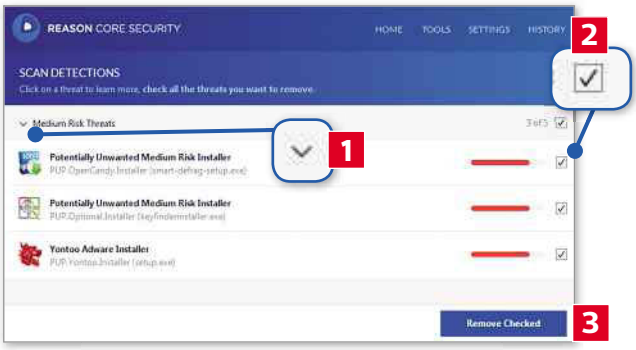


Block junk when installing programs

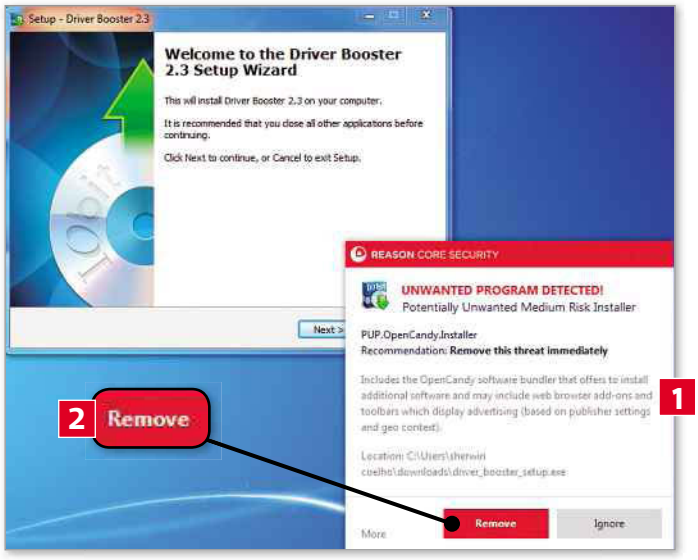
What you need: Reason Core Security; Windows XP, Vista, 7,8 or 10
Time required: 15 minutes

It can be very annoying when software smuggles bundled junk (PUPs, add-ons, toolbars, other software) on to your PC without your knowledge during installation. You can prevent this from happening by using Reason Core Security, a new, free security program that works alongside your antivirus It warns you when these unwanted extras are about to be installed and gives you the option to block them. When you first launch Reason Core Security, it scans your PC for junk that may have already been installed and removes it.

STEP 1 To download the free version of Reason Core Security, go to www.snipca.com/16566 and click the blue Free Download button. Run the downloaded setup file, follow the instructions, then click Finish to launch the program. Click Next on the first three introductory screens. On the fourth, ensure the box is ticked 1, then click Next 2. The program will begin scanning your PC for junk (which it refers to as 'threats'). If it finds any, click Yes when prompted to run a more comprehensive scan to search for 'additional threats'.



STEP 2 You'll see your scan's progress (as a percentage in the middle), with a summary of scanned items and detected threats at the top left. Once the scan is finished, click the View button, then click the dropdown menu 1 to display these threats (our own scan revealed potential threats that were not identified by our antivirus). Tick the detected items 2, click Remove Checked 3, then Yes. When that's done, you'll see a message on the main screen confirming their removal.



STEP 3 Whenever you install a program that comes with bundled junk, Reason Core Security will warn you during installation and give you the option to block it. It also automatically unticks any boxes during installation. You can read a summary of any junk it finds 1, then click Remove 2. If you decide to install the program, the program, click 'Run a quick scan' to make sure all bundled junk was successfully removed. If you still see threats, repeat Step 2 to remove them.

NEXT ISSUE

ON SALE 24 June

- Try Windows 10's tools without installing it
- Record your PC problems as a video
- Save and edit pictures in Google Photos
- Print every file in a folder with one click

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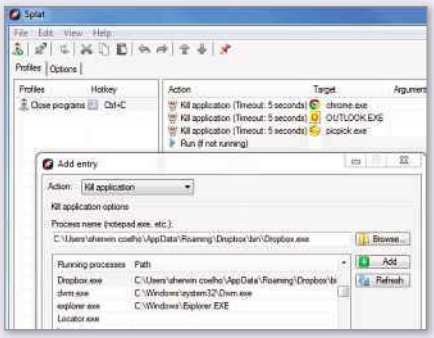
TIP OF THE FORTNIGHT

Close multiple programs with a keyboard shortcut

In Issue 449, you featured a brilliant, free program called Splat in the 'Launch multiple programs with one keyboard shortcut' Workshop (see page 42). When using it, I realised that Splat also lets you batch-close programs using a keyboard shortcut, which I find more useful.

First, ensure all the programs you want to be closed by your shortcut are open. Next, install Splat by going to www.snipca.com/16343, then clicking the orange Splat.zip link. Open the downloaded zipped file, then the Splat.exe file and click Run. Now click the small rocket icon at the top left, name your shortcut profile, then click OK. Click the profile at the top left, then double-click the first cell below Action on the right to see the 'Add entry' window (see screenshot above).



Click the Action dropdown menu and select either 'Close application' or 'Kill application'. The latter is more effective but doesn't save data from the program before closing it. Next, navigate to the first program you want to close in the 'Running processes' column and click it. You'll notice that some programs (such as Chrome) will have multiple entries listed. If this is the case, keep the Shift key pressed and select all its entries. Next, click the Add button. Finally, type 0 in the 'Time to wait for app to close' field, then click Save. Now click the second cell below Action and add the second program you want to close. Repeat this to create a list of all the programs you want to close.

When you've finished adding them, right-click the profile you created at the top left, click 'Edit launch hotkey', select the keyboard shortcut you want to use to close those programs and click Accept. Now, whenever you have any of these programs open, press the shortcut you created to close them.

Ron Blyth

The winner of every Tip of the Fortnight wins this exclusive Computeractive mug!

SPELL-CHECKER

Get notified whenever you misspell a word

Having recently moved to the UK from Spain I am trying to improve my English. Despite my efforts, I still make a lot of spelling mistakes when typing. My English tutor told me to use a free program called tinySpell that makes a sound and gives you a list of spelling suggestions every time you mistype something. This works in every program on your PC – including Office, Notepad, the Windows search bar, and even in browser search boxes and URL fields.

To download it, go to www.snipca.com/16576 and click the green Download Now link at the top left. Run the downloaded setup file and follow the steps to install it. Now, whenever you misspell a word, you'll hear a notification sound (a ping). You'll also see the misspelt word in a small yellow box (see screenshot below left). Click this box to see possible alternatives, then select the correct one. To customise the program, open tinySpell (by clicking the small white TS icon in your PC's notification area). From here, you can change the size of the yellow box by selecting Small, Large or Huge in the 'Spelling tip' section (it's set to Medium by default).

Cristobal Batista

BROWSER

Remove the user profile icon in Chrome

I've recently noticed that Chrome has added a new 'profile' icon (with my name) at the top right of my browser window (to the left of the minimise and close buttons). It lets you switch user accounts or use Incognito (Chrome's private browsing mode). I find this icon distracting and wanted to get rid of it. Thankfully, this is quite easy.

In the Chrome browser bar, type chrome://flags, press Enter, then press Ctrl+F to bring up the search bar at the top right. Type new profile management system to see the relevant option highlighted (see screenshot right). Click its dropdown menu then select Disabled. Finally, scroll to the bottom of the page and click Relaunch Now to re-open your browser without the profile icon.

Peter Parry

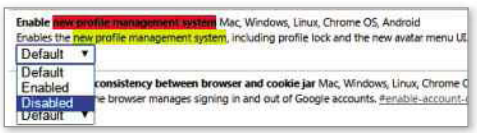
SOCIAL MEDIA

Download Facebook videos to your PC

On occasions, I come across some great videos on Facebook that I'd like to keep, but until recently I never knew you could download them to your PC. To do this, first open the Facebook page with the video you'd like to download. Next, replace the 'www' in your Facebook URL bar to 'm' (for example, https://www.facebook.com/xyz should now read https://m.facebook.com/xyz). Don't be startled by the changed Facebook layout in your browser – what you're doing here is accessing Facebook's mobile website on your PC.

Now navigate to the video you want and start playing it. While it's playing, right-click the video, click 'Save video as', then rename the file and save it wherever you want.

Brian Horlock



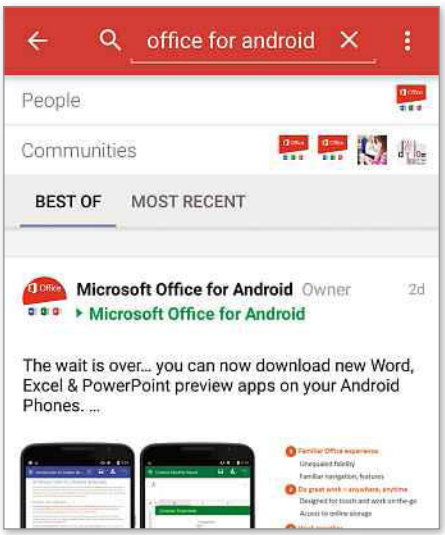
Phone and Tablet Tips Brilliant things to do on your device

ANDROID

Use Microsoft's new Office apps on your phone

Microsoft released free Word, Excel and PowerPoint apps for Android tablets earlier this year, but until recently there were no equivalent apps for Android phones. Microsoft has now launched Preview versions of the phone apps in the Play Store. To install them, you'll first need to become an 'app tester' by joining the Microsoft Office for Android 'community' on Google+, after which you can install the apps from the Play Store.

To do this, open Google+ (tap the red G+ icon) on your phone, tap Home at the top to reveal the search box, then type Microsoft Office for Android and tap Enter (this brings up a list of posts from that community). Tap the green 'Microsoft Office for Android' link (see screenshot right) to go to the community page, then tap 'Join community'. Next, scroll down to the see Word, Excel and PowerPoint Preview links. We'll show you how to install Word, but the process is the same for all three.



Tap the Word Preview link, then tap the blue Become A Tester button. When you see 'You are now a tester' in green, scroll down and tap the 'Download Microsoft Word from the Play Store' link. Tap Install on the app entry, Accept, then Open.

Swipe across the introductory screens, until you see 'Sign in'. Tap this and log in using your Microsoft account, then tap 'Create and edit for free'. If you have a OneDrive account, you'll see all your saved documents. Tap one to open it and begin editing. To create a new document, click the +New tab at the top, then tap 'Blank document'. Type your text. To format the text, tap and hold a portion of it until you see sliders, then drag the start and end points to select the text you want to format. Next, tap the small dropdown menu at the bottom right to see formatting options (including bold, italics, underline, colours and highlight options).

To save your file, click the floppy-disc icon at the top, then select OneDrive or 'This device'. Rename your document by typing in the field at the bottom, then tap Save.

ANDROID

Find apps for your Chromecast

Google's £30 Chromecast (www.snipca.com/16675) has been a huge hit since it launched last year. Most people use it to stream (or cast) media from their device to their TV, letting them watch YouTube, Netflix or BBC iPlayer on their HD TV.

However, did you know there's a separate section in Google Play for all the apps that can be used with your Chromecast? To access it, open Google Play, tap Apps, Categories at the top left, then Google Cast. You'll see a list of Chromecast apps in various app categories, such as New, TV & Films, and Games.

ANDROID & iOS

Find the meaning of any word with two taps

If you use an iOS device you can find the definition of any word within any browser app with just two taps. Simply press and hold the word, then tap Define to see its definition in a small pop-up dictionary. You can even tap 'Search web' to run a Google search for it.

Android lacks this feature by default, but you can add a similar one by downloading the free dictionary app Power Reading: Word Snitch from www.snipca.com/16663. Once you've done that, open it and tap the green 'Usage Method I' button to turn it on.

Best New Apps What you should install this fortnight

Layouts from Instagram
Free
Android: www.snipca.com/16664
iOS: www.snipca.com/16665

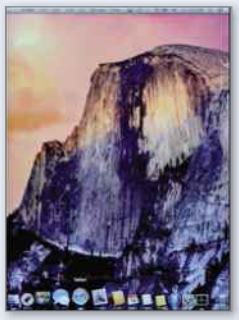
Instagram is one of the most popular ways to share photos. Its new app lets you create a collage using a number of photos on your device. You can choose from different layouts, edit your photos and add effects to them, then save the collage to your device or share it using compatible apps.

Avast Battery Saver
Free
Android: www.snipca.com/16667

The four modes in this app help you prolong your device's battery life. They achieve this by closing apps that sync data in the background, adjusting your phone's brightness level and turning off unwanted battery hogs – such as Bluetooth and location services – which may be on without your knowledge.

Duet Display
£11.99
iOS: www.snipca.com/16668

Using this brilliant app you can turn your iPad or iPhone into a second PC monitor. Simply install the app on your device, download the free Mac/PC program from www.duetdisplay.com, then connect your device to your Mac/Windows 7 or 8/8.1 PC. It's the best way to turn your old iPad into a second screen.



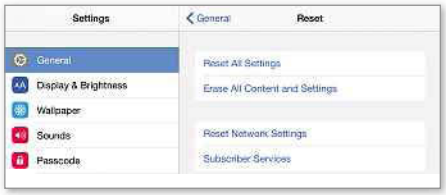
Now, whenever you want to find the meaning of a word, simply tap and hold it, then tap the copy icon (two overlapping documents) at the top right of your browser. The text will be copied to your device's clipboard and its definition will appear on your screen as a pop-up (see screenshot below). You can also tap the grey globe icon at the top right to search for that word online.

iOS

Fix your device when apps fail to install

On occasions you may notice you cannot install apps on your iPhone or iPad from the App Store. The most likely cause is a poor Wi-Fi connection or a changed device setting. If this occurs, try switching your Wi-Fi router off and on again, then try installing the app again. If this doesn't solve your problem, you should reset all your device's settings. You can do this safely with one tap. This will only reset your settings and won't affect any apps you've already installed.

Open the Settings app, tap General, then scroll to the bottom and tap Reset, then Reset All Settings (see screenshot below). Your device will now restart. You will need to manually adjust all your settings, including re-connecting to your Wi-Fi network, but you'll now be able to install your apps again.



iOS

Shrink photos to email them faster

When you attach photos to an email in your Mail app, they are added in their original resolution. This means that if the files are large they may take a while to send. If you need to send a lot of photos, you should refer to our Workshop on page 40 ('Send photos from tablet to PC withour email'). But if you have to transfer files via email, you should reduce their size before sending them.

To attach photos, open the Photos app, then tap Select at the top right and tap the relevant photos (you'll see blue ticks on those you select). Next, tap the Share icon at the top left, then tap Mail to attach your photos.

To shrink their file size, click the Images option at the top right. You'll see a new Images Size field with four options – Small, Medium, Large and Actual Size (which is selected). Tap to select one of the smaller options (see screenshot above), then type your message and send your email.

Games With Kids

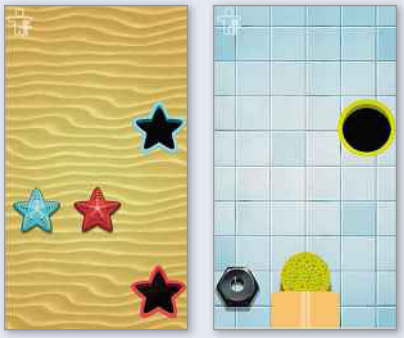
What to play together on your phone and tablet

AGES 0-5

Busy Shapes

£1.99 www.snipca.com/16669 (iOS)

Your toddler will love this game, in which they need to drag a shape across the screen and move it to the correct outline. As they improve, the games become more challenging – they'll then need to drag shapes of different colours and they must complete tasks within a time limit.



AGES 6-10

Fruit Ninja: Math Master

£4 www.snipca.com/16670 (Android)
£3.99 www.snipca.com/16671 (iOS)

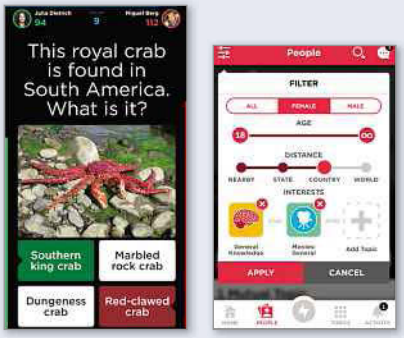
You may have heard of Fruit Ninja – the addictive game where you need to swipe across various fruits that appear on the screen within a set time. In this version (made by the same company), your child must solve a maths problem to find a number, then swipe across the correct number of fruits.

AGES 11-16

QuizUp

Free www.snipca.com/16672 (Android)
Free www.snipca.com/16673 (iOS)

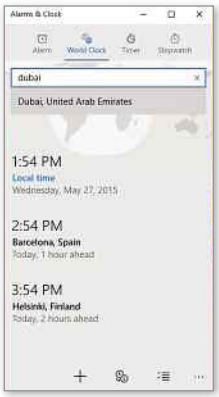
The new version of the biggest trivia game in the world lets you search for and compete against people of the same age, gender, location and interests (based on their profile). It also features a new design and the ability to chat with players and share photos within the app.



WINDOWS 10

Add different locations to the Alarms & Clock app

The Alarms & Clock app in Windows 10 lets you add cities (as many as you want) to keep track of the times around the world. First, pin the app to your Taskbar for one-click access. To do that, open the Start menu, right-click the Alarms & Clock app on the left, then click 'Pin to taskbar'.



To add more cities, open the app, click the '+' symbol at the bottom, start typing the name of city, then click the correct autosuggest option (see screenshot). Repeat this to add as many cities as you want.

WINDOWS 7, 8

Permanently delete sensitive data from Dropbox

Whenever you delete a file from the Dropbox program on your PC, it's saved to Dropbox's servers. This lets you recover files within 30 days (by going to www.dropbox.com). However, if you want to make sure that the files you've deleted are permanently erased from Dropbox's servers, then you should delete these files from the Dropbox cache folder on your PC. It's advisable to permanently delete any files containing sensitive details – such as your bank details or login passwords – for security reasons.

To do this, first close all programs on your PC. Next, press the Windows key+R to open the Run dialogue box. Type %HOMEPATH%\Dropbox\.dropbox.cache (see screenshot), then click OK. This opens your Dropbox cache folder, where you'll see several folders marked with red crosses. Press Ctrl+A to select all the folders, then press Shift+Delete to permanently delete them (and your entire cache) from your PC.

WINDOWS 7

Change Windows' default notification sounds

We are all very familiar with the default Windows notification sounds for specific events. These include the start-up fanfare, the abrupt beep whenever you insert and remove USB devices or receive a new email, and the brief melody when you shut down your PC. However, you can change these default sounds or even remove individual ones that annoy you.

First, open the Control Panel, click 'Hardware and Sound', click the green Sound link, then the Sounds tab. Untick 'Play Windows Startup sound' at the bottom if you'd prefer your PC to boot up in silence.

There's an easy way to change the sound scheme for all your notification alerts. For example, to hear the sound that plays whenever you insert a USB device into your PC, click the Device Connect option in the Program Events pane, then click the Test button. Now click the Sound Scheme dropdown menu at the top (which is set to Windows Default), then click one of the other options (for example, Afternoon). Click the Test button again and you'll notice that the tone is slightly different to the Windows default. You're other notifications will also change to a similar tone.

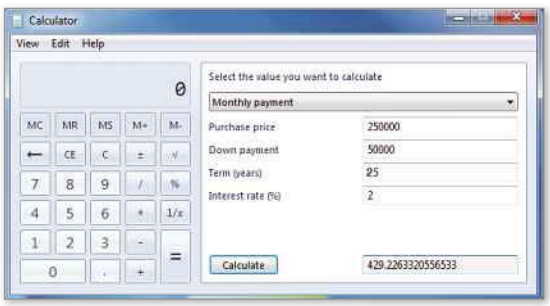
To turn off a notification sound for a particular event in Windows, click its option (so click Device Disconnect within the Program Events pane, for example), then click the Sounds dropdown menu at the bottom and select '(None)' (see screenshot). Click Apply, then OK.

WINDOWS 7, 8

Calculate monthly mortgage payments when buying a house

If you're thinking of buying a new property and want to work out what your monthly mortgage payments will be, use the calculator on your PC rather than download any dedicated programs or visit mortgage-calculator websites. To access it, press the Windows key to open your Start menu, type calculator and press Enter. Next, click the View option at the top left, then move your cursor to Worksheets at the bottom and click Mortgage.

You'll see a new section to the right of your calculator where you can calculate your mortgage down payment deposit, monthly payment, purchase price or term (in years) using the dropdown menu at the top. To calculate the monthly payment, for example, click the dropdown menu and select 'Monthly payment'. Now type the purchase price, down payment, term and interest rate in the fields provided (see screenshot below), then click the Calculate button.

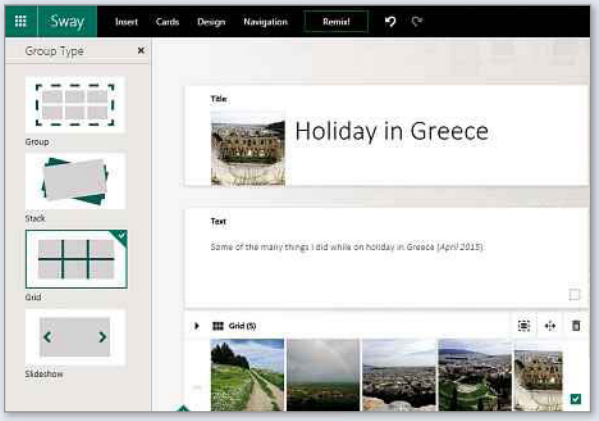


SWAY

Use Sway's new text themes and photo tools

Microsoft's new online presentation tool, Sway, now lets you customise text and photo collections using a range of themes and styles. Go to www.sway.com, click 'Sign in' at the top right and log in with your Microsoft (Hotmail or Outlook) account. Next, click the three dots at the top right, then Create New (to start creating your 'sway').

Click 'Title your Sway', name it, press Enter, then type whatever you want in the text field that appears below. Click the Design option at the top to see the new text themes. Select a theme for a preview of how your text will look.



To use the new photo-layout options, click Cards at the top to see a pane on the left, then click Stack. Next, click the '+Add a picture' tile, click Upload, navigate to the first photo you want and click Open. Repeat this to add as many photos as you want. When you've finished, click the 'Group type' option at the top right of your photos to see a section on the left – from here you can choose from a selection of new layout styles for your photos (see screenshot).

For example, selecting Grid will display your photos in a uniform grid pattern. Stack arranges your photos so you only see the first one, but when you click it, it moves to the back of the stack to reveal the second one.

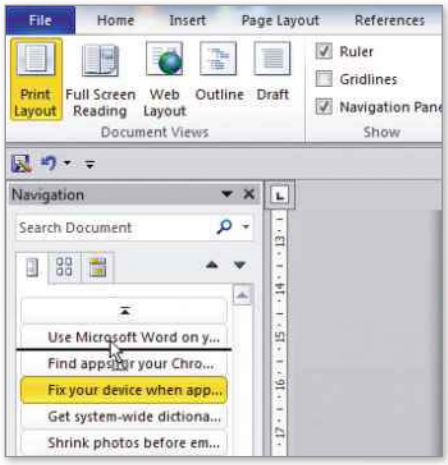
When you've finished, click the Share icon at the top right and choose how you want to share your sway.

WORD

Rearrange text using the Navigation Pane

The quickest way to rearrange passages of text or whole paragraphs in a lengthy Word document is to first create headings for each section. You can then move these headings (and thereby the sections they represent) using the Navigation Pane.

To create a heading, simply highlight the section title, then click one of the Heading options in the Styles section of the Home tab. To see the Navigation Pane, click the View tab, then tick Navigation Pane in the Show section. You'll see all your headings listed in the pane (see screenshot below). To move a section of text, simply click its heading, then drag it (up or down) and drop it where you want it.

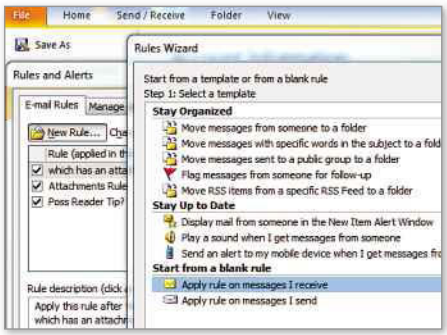


OUTLOOK

See pop-up alerts for every email you receive

Whenever you receive a new email in your Outlook Inbox, a small notification alert will pop up at the bottom right of your Desktop. However, if you've created a 'rule' to automatically move, for example, emails from a specific contact or emails that contain certain key words into a sub-folder within your Inbox, then you won't be alerted to these.

If you want to receive alerts for all your emails, you need to create a new rule for this. To do this, first click the File tab at the top left, then the Manage Rules & Alerts button at the bottom. Click New Rule at the top left to see the Rules Wizard window. Next click 'Apply rule on messages I receive' (see screenshot above right), then click Next and Yes. Finally, scroll to the bottom, tick 'display a Desktop Alert', then click Finish and OK.

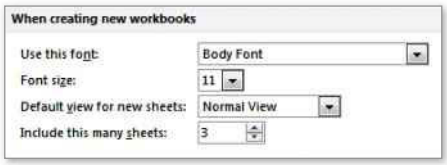


EXCEL

Change Excel's default settings

Any new Excel spreadsheet will always contain three sheets (at the bottom left). You'll also notice that the font style and size is set by default (this default varies depending on which version of Office you use).

To change these defaults, click the File tab at the top left, then Options at the bottom left to see the Excel Options window. The middle section ('When creating new workbooks' – see screenshot below) lets you tweak Excel's default settings with new spreadsheets. You can change the default font and font size using the dropdown menus, and adjust the number of sheets Excel opens with by clicking the up and down arrows in the 'Include this many sheets' field. When you've finished, click OK at the bottom right, then OK again. Now close Excel and reopen it to see a spreadsheet with your new defaults.



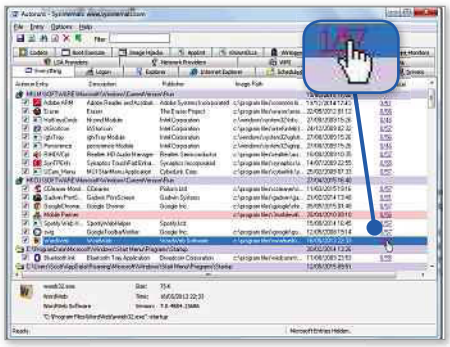
Autoruns

Check for malware, compare configurations and discover command-line secrets

Check for malware using VirusTotal

The latest version of Autoruns (www.snipca.com/16584) has a new feature that lets you check files for malware. It does this by integrating with VirusTotal (www.virustotal.com), a Google-owned service that collates 'community scores' for billions of files. VirusTotal doesn't remove viruses, so isn't a substitute for good security software, but it does offer useful insights into suspect files.

To check VirusTotal scores in Autoruns, right-click an item and select Check VirusTotal. The item's score will appear in the VirusTotal column (if the score is zero, the item is safe). Click a score and you'll be taken to the VirusTotal website, where you can learn more about the specific item. To see scores for all Autorun items, open the Options menu, choose Scan Options, tick 'Check VirusTotal.com' and click Rescan.



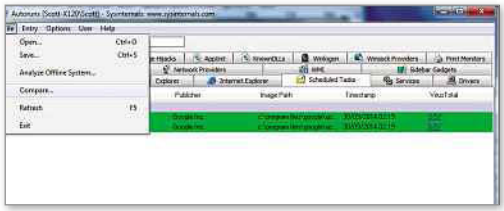
Enable built-in virus scores to flag up suspect items, then find out more online

Hide Microsoft tools and services

Microsoft tools and services aren't always innocent when it comes to causing PC problems, but they're usually low on the list of things to worry about. Besides, there's often very little you can do about them until Microsoft fixes things, so it makes sense to hide them when using Autoruns for troubleshooting. Just tick Hide Microsoft Entries in the Options menu, then tap F5 on the keyboard to refresh the view.

Save your Autoruns configuration

Autoruns is mainly used for troubleshooting startup problems, which is typically a process of trial and error. So, you might find it useful to save a 'good' configuration while your PC is working well, as this could help later to get it back on its feet. To do this, just click File, then Save, type a name for your configuration and then click Save. By default, these files are saved as ARN ('.arn') files, but really they're just text files, so you can open them in a tool like Notepad if you want to have a look.



Compare the current and saved startup configuration to figure out what's changed

Compare with saved configurations

Autoruns has a built-in tool for comparing the current configuration with a saved configuration. If you've made use of the previous tip, this is a very handy way to figure out what's changed since you last used Autoruns. Choose Compare from the File menu, then navigate to a saved configuration file, click to select it and then click Open. Differing entries will be highlighted in green. Click between those with the same description, then look in the status bar below to see what's changed.

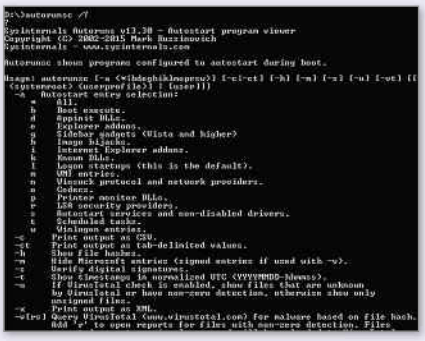
Use Autoruns as a portable program

In case you didn't realise, Autoruns is a portable program. That means you can copy the program file ('autoruns.exe') on to a USB stick and run it on any PC. So, once you've mastered how to use Autoruns for yourself put it in your pocket to help others, or for use on other ailing PCs of your own. Press Win+E to launch Windows Explorer (or File Explorer), then simply drag and drop the autoruns.exe file on to your memory stick. We'd also advise copying autorunsc.exe (see box left).

Use Autoruns at the command prompt

Autoruns comes with a command-line version called AutorunsC, which might prove useful if you can't get Windows to start. AutorunsC isn't for novices, but it's a good way to gather information about a Windows PC's startup processes.

Start by copying the AutorunsC program file ('autorunsc.exe') to a USB stick. Now shut down your PC, then switch it back on and repeatedly tap F8 before Windows launches. Choose 'Safe Mode with Command Prompt' from the menu that appears, using the arrow keys and Enter. Now type your USB stick's drive letter and press Enter, then type autorunsc.exe /? (including the space after 'exe') to see a list of all options and the command syntax. Type autorunsc to display the PC's startup information. To save this information as a text file on your USB stick, type autorunsc >mystartup.txt and press Enter.



Next issue Secret Tips For... Google Earth Pro

Google Tone

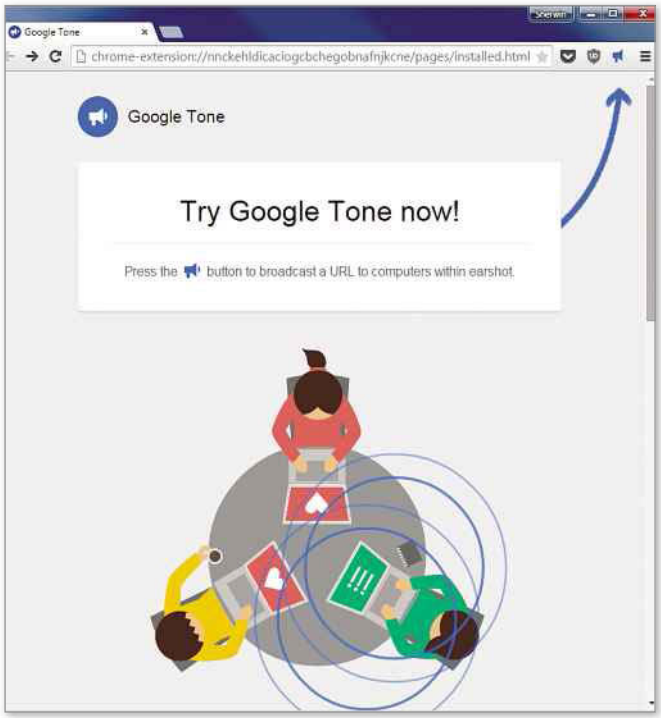
Forget email – you can now send items using your computer's sound instead

What is it?

A new, free Chrome extension that lets you 'broadcast' files and web addresses to nearby computers using your PC's sound. Google says the extension "aims to make sharing digital things with nearby people as easy as talking to them". It promises to let you share items more quickly than is currently possible by email.

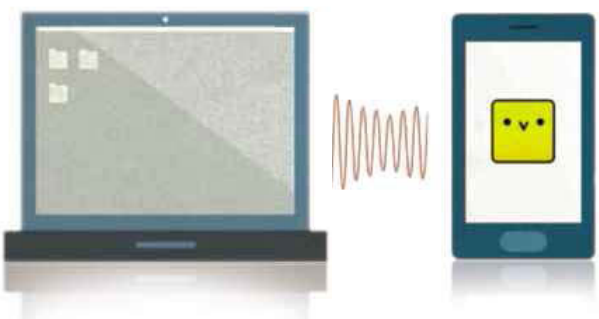
How does it work?

By emitting a short sequence of bleeps that can be picked up by other machines "within earshot". These bleeps behave just like a human voice does, so they can't pass through walls, and can be affected by the acoustics of a room and the sensitivity of computer microphones.



How well does it work?

It can be a bit erratic, but then it is an experimental feature, so it's unfair to expect it to work perfectly straight away. Google admits that – by it's very nature – it can't be completely reliable: "Not every nearby machine will always receive every broadcast, just like not everyone will always hear every word someone says". But it worked for us in the *Computeractive* office. If it doesn't work, you'll see the message "Tone couldn't hear itself".



Android and iOS app Chirp also sends files using a PC's sound

Can I try it now?

Yes. First, make sure you're logged into your Google account, check that your PC's volume is on, then add the extension to Chrome from the browser's web store (www.snipca.com/16587). You'll now see a blue speaker icon at the top right of your screen. Next, go to a web page you want to share with someone, then click the speaker icon. Your PC will emit the bleeps. Any computer within range that has Tone installed will receive an on-screen notification. Clicking it will open the same web page that's already open on the 'sending' PC.

Sounds ingenious. But won't the bleeps get annoying?

They could become so after a while, once the novelty wears off. But Google has worked hard to make them palatable to the human ear, following early tests that, by their own admission, "sounded terrible". The bleeps actually sound rather musical, like the noise we'd imagine a robot makes when thinking.

What should I use it for?

For instantly sharing files and websites with people in the same room as you. Workers collaborating on a project will find it useful, but so will family members who want to share photos, news stories, YouTube videos or blog posts. Anything you can see online, in fact.

Tone helps to solve a curious paradox about modern technology, as identified on the Google Research Blog (www.snipca.com/16586) by Alex Kauffmann and Boris Smus, who helped to develop the extension. They maintain that while email has made it much easier to share items with people around the world, it's an unnecessarily long-winded way of sharing items with people in the same room.

Is Google Tone unique?

No, the Android and iOS app Chirp (http://chirp.io) does something very similar. Launched in 2012 by British inventor Patrick Bergel, it hasn't caught on as quickly as the early hype suggested (read what the BBC's Rory Cellan-Jones wrote at the time: www.snipca.com/16588). But Bergel hopes that fresh competition from Google will make the 'internet of sound' – as he calls it – seem like a more plausible method of sharing items.

Chirp responded to Tone's arrival by rushing out its own Chrome extension (http://chirp.io/chirp-chrome). The British company is keen to play David to Google's Goliath, saying: "Naughty Google: Tone is a clone". Let battle commence!

Double Your PC's Life

Do you really need to replace your PC? **Jane Hoskyn** reveals how to make it last twice as long using free tools, secret tips and value-for-money upgrades

WHAT YOU CAN DO

- Give your PC a health check
- Extend its life using tools built into Windows XP, Vista, 7 and 8/8.1
- Make it last even longer using free software and secret hacks
- Find out which hardware upgrades are worth the money

You could buy a new computer especially for Windows 10, and PC manufacturers are busy encouraging you to do so. But why should you have to?

Don't know about you, but we're craving a bit of consistency. Microsoft currently seems to be forcing new operating systems on us every other week, and your software and apps change (sorry, 'update') so often they look different every time you open them.

Chances are you're used to your current PC. If you've been using it for a year or more – perhaps many years more – you know how it works, and you've probably spent hours organising your software and files to suit you. Moving to a new PC would be like moving house – stressful, confusing, expensive and time-consuming, and not actually necessary.

Do you *really* need a new PC?

As we reveal in our feature on upgrading to Windows 10 (see page 60), your current PC may be more than up to the job of handling the new operating system (OS). In fact, it could be capable of running far more software and doing many more things than you realise, and for more years than you'd imagined.

Over the next few pages we'll show you how to find out your PC's current lifespan, and then reveal how to extend it using free software and tools built into all versions of Windows since XP. Some of these tools may be familiar to you, but many won't be. We'll also show you the latest hardware upgrades that are actually worth paying for, and how to make them last.

HOW HEALTHY IS YOUR COMPUTER?

Get a PC health report

Before trying to extend your PC's life, first find out how much life there is left in it. You can get a full System Diagnostics Report (also known as System Health Report) in Windows without downloading any extra software.

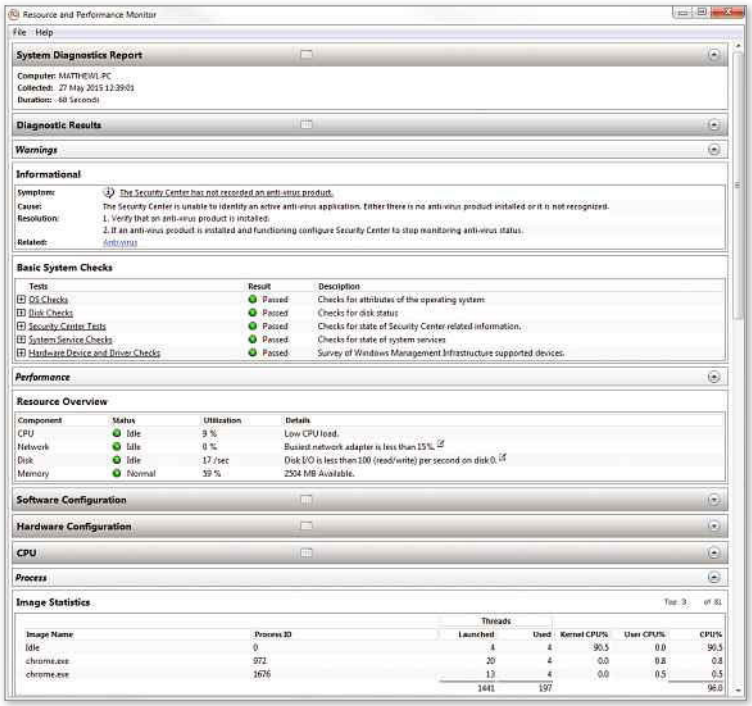
The process is slightly different in each OS. In Windows XP, Vista or 7, open the Run box (press Win+R) and type perfmon /report (include the space before the slash), then click OK or press Enter. The 'Performance and Resource Monitor' opens and spends 60 seconds collecting data about your system's health and status. The System Diagnostics Report then opens automatically.

In Windows 8/8.1, open Performance Monitor by typing perfmon into Start and pressing Enter. Click Data Collector Sets on the left, then System. Right-click the System Diagnostics folder and click Start. A minute later, your System Diagnostics Report will be available to view in the **Reports\System\System Diagnostics** folder. This process is more cumbersome than in previous versions of Windows, but it automatically saves all your reports in this folder. In Windows XP, Vista and 7, you have to save the report yourself by clicking File, then Save As.

Whichever OS you're running, the report contains 'Warnings' at the top. If your PC is ready for the knacker's yard, here's where you'll see the bad news. The rest of the report divides your PC's health diagnosis into sections, including Hardware Configuration, Disk (hard drive) and Memory. Click the small arrows at the right of the window to open each section and view a wealth of information (see screenshot above right), including the system specifications you'll need to know if you're hoping to upgrade to Windows 10.

Pay particular attention to the CPU section (where you'll find checks and ratings for your PC's processor) and the Disk section (where you can discover any 'hot files' that are weighing down your hard drive).

Windows 7 has a bug that prevents your antivirus being recognised by your report (under 'Informational', below 'Warnings'). It'll tell you your antivirus isn't enabled, even if it is. To solve this, download the free Microsoft Hotfix (www.snipca.com/16678).



Discover potentially fatal PC errors and check components like your processor (CPU) and hard drive (Disk) in the System Diagnostics Report

Take your PC's temperature

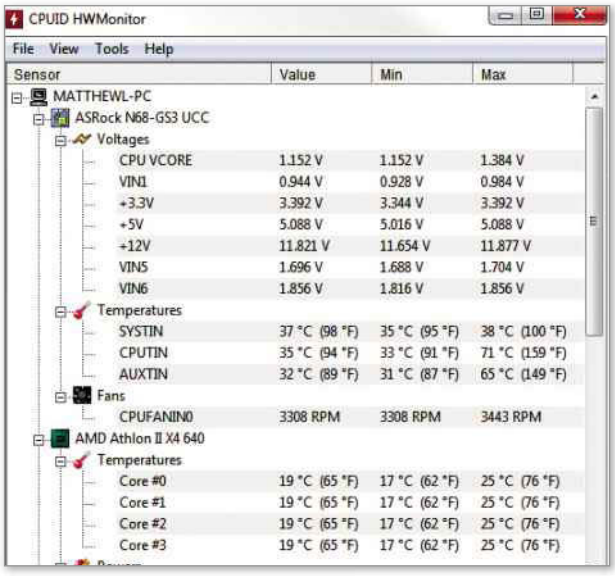
You may be happy that summer's here, but your PC probably isn't. Hot components age faster. Last year, UK science group National Instruments (www.snipca.com/16680) found that an increase of 5 degrees Celsius (°C) can take up to two years off a hard drive's life expectancy.

To check your PC's core temperature, as well as the temperature of components such as the hard drive, graphics card and processor, run the free portable version of HWMonitor (www.snipca.com/16677). It also measures your fan speed, so you can see how hard the fan is having to work to keep your PC's components cool.

Download the ZIP and extract its contents, then click the 32bit or 64bit program file to run the appropriate program for your PC's configuration. In the window that opens, you'll see a table of temperatures, voltages and other measurements.

Don't be alarmed if the figures look a lot higher than room temperature (about 23°C). Most of your PC's heat is generated by its own components, which is why the fan whirrs when you're running lots of processes. You should only be concerned if your processor (CPU, listed as 'CPUTIN' under the 'Temperatures' heading) is hotter than 75°C (see screenshot left).

To cool things down, avoid running lots of processes at once, and don't add to the problem by sticking your PC next to a sun-facing window or warm radiator. If you use a laptop, mount it on a USB-powered laptop stand with a fan in the base. You can get one for under £10 from Amazon (www.snipca.com/16674).



Use HWMonitor to check that your processor and other components aren't overheating

USE FREE SOFTWARE TO EXTEND YOUR PC'S LIFESPAN

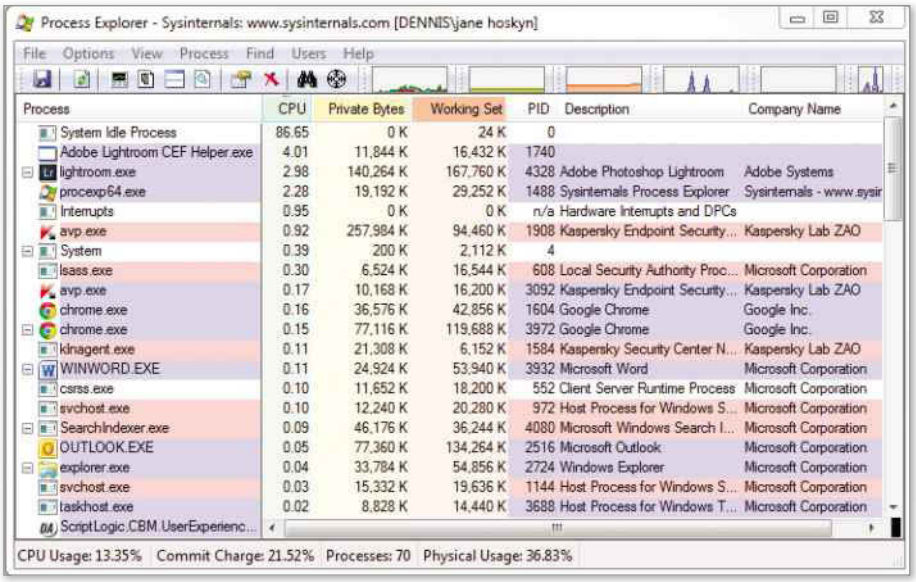
See your PC's hidden workload

If your processor is over-heating, it's probably because too many programs and processes are running at the same time. Computer processors are like people – make them work too hard, and they'll burn out.

First, cut the number of processes that run automatically when you start Windows. Our favourite free tool for doing this is Autoruns (www.snipca.com/16681). On page 48 we offer Secret Tips for getting the best out of it, including new automatic integration with VirusTotal (see box below).

Next, weed out the hidden processes that don't appear in Task Manager, but grind away behind the scenes, slowly wearing out your processor. Some of these are system processes and DLLs that Microsoft doesn't want you to meddle with, and others are deliberately hidden by software-makers who use special code to make them invisible, usually to prevent you stopping or deleting them by accident (here's how they do it: www.snipca.com/16700). That's useful in a way, but it means you're not really in control of your processor's workload.

The quickest way to see all these processes is to run Process Explorer (www.snipca.com/16697) – which, like Autoruns, is a free, portable tool made by Microsoft-owned company Sysinternals. You need to run Process Explorer as administrator to see all running processes. Click Download Process Explorer, save the ZIP and extract the EXE file, then right-click it and click 'Run as administrator'.



Quickly see the hidden processes that are wearing out your processor with Process Explorer

A table of running processes will open instantly (far quicker than Task Manager opens, anyway). It's a colourful affair, with system services coloured pink and your own processes in blue. Red processes only appear for a moment, because Process Explorer identifies them as suspicious and stops them automatically. You can customise your colours by clicking Options at the top of the window and selecting 'Configure Colors'. To quickly see which processes are making your PC work hardest, click the CPU column heading twice.

Click View at the top of the window and then Show Lower Pane to see each process's hidden components, including DLLs.

Stop and search running processes

Process Explorer gives you plenty of information about all your PC's running processes. Right-click and click Properties to see detailed information about the item's CPU and memory usage. You can even see how hard all these processes are making your graphics card (GPU) work: click View at the top of the program window and select System Information.

To run an instant search of a process in

WHY PORTABLE PROGRAMS ARE GOOD FOR YOUR PC

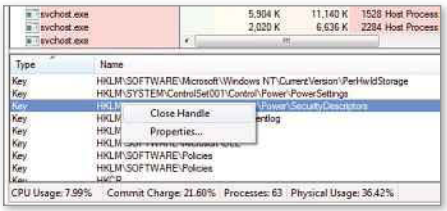
Most of the third-party tools we mention in this feature are portable. Some, such as HWMonitor and Process Hacker (see page 53), also have installable versions. Installable software has the advantage of updating automatically and can be set to run when you start Windows, but it also fills your hard drive and Registry with files that build up over the years and can hasten your computer's demise.

System-monitoring tools and PC health-checkers are not the kind of tools you need to run every day. Run the portable version of HWMonitor, for example, and then delete it from your PC. When you want to run it (or any other portable tool) again at some later date, simply download the latest version.

Always use the latest version of any portable tool, because old versions may be unsafe. Upload a portable program file to the free online malware-checker VirusTotal (https://www.virustotal.com), for a safety check before you run it. If the scan result says 'Detection ration: 0/57', the file is safe to run.

Portable programs can even help your old Windows XP PC live longer. You mustn't go online using XP, of course, because Microsoft no longer keeps it safe. However, you can run a portable program on an XP PC, after downloading it using a Windows 7 or 8/8.1 PC and then transferring the program file to a USB stick. Scan both the program file and the USB stick for malware first.

For more ways to use an old XP PC safely, see our series of features from Issue 446 to Issue 449.



Select Close Handle in Process Explorer to close a process that's 'in use'

Google, right-click it and click Search Online. You can now do this in Task Manager in Windows 8/8.1, but Process Explorer is faster. Click Check VirusTotal in the right-click menu to run it through the VirusTotal database.

To stop any process, including processes you can't stop or even see in Task Manager, right-click it and click Kill Process.

If you see a Windows error message saying the file or folder is 'in use' and therefore can't be stopped or deleted, Process Explorer can help you there, too. Click Find at the top of the window, then 'Find a Handle or DLL'. Type the name of the file or folder that Windows won't let you stop, and Process Explorer will tell you which process is locking the file. To remove the lock, click the stubborn process and find the troublesome DLL in the window at the bottom (make sure Show Lower Pane is ticked in the View menu). Right-click the DLL and then click Close Handle.

Stop rootkits killing your PC

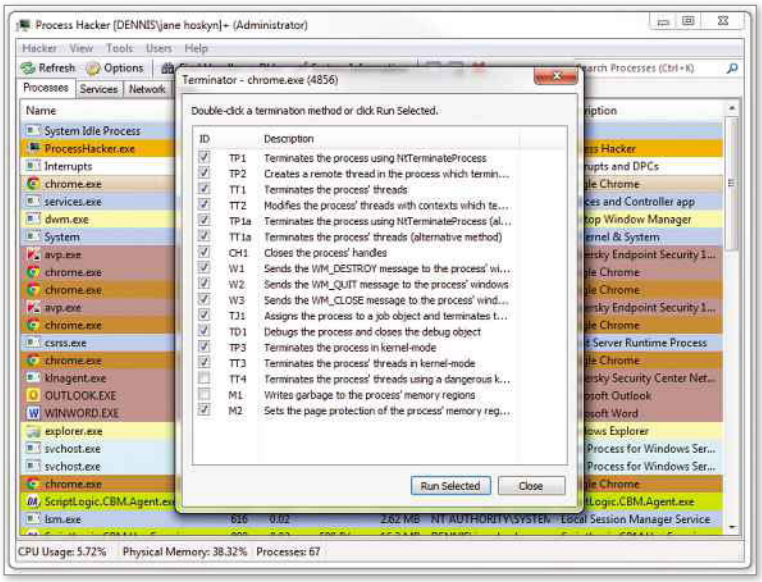
If you can't manage to kill a process in Process Explorer, even after tracking down and unlocking DLLs, it may be a rootkit. Rootkits are malicious processes designed to run undetected by security tools and resist any attempts to stop or delete them. If a rootkit has infected your PC, it will send your processor to an early grave.

To root out rootkits, use the new version of Process Hacker (www.snipca.com/16701). This free, open-source tool sounds and looks like Process Explorer, and acts like it up to a point, but it's more complicated (there's a lot more colour-coding, for a start) and can remove processes that won't budge in any other program.

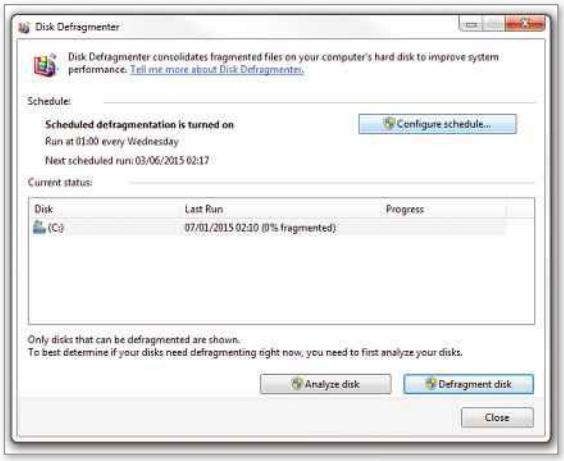
Process Hacker works in all versions of Windows from XP to 8.1, and comes in portable and installable versions. To get the portable program, click 'Binaries (portable)', save the ZIP, extract its contents and click the 'x86' folder if your PC is 32bit or 'x64' if it's 64bit. (The fact that the numbers don't tally is an annoying Windows quirk. Here's how to find out which version you've got: www.snipca.com/16702.) Run the program file ('ProcessHacker.exe') as administrator.

Click View, then untick Update Automatically to stop the processes constantly changing in the window. Now you can investigate each one in your own time. The right-click menu is much bigger than in Process Explorer, with options to search on several virus databases and even run a process in a virtual machine. For an array of file-killing options, click Miscellaneous in the right-click menu and then click Terminator.

Also use AdwCleaner (www.snipca.com/16710) and Malwarebytes Anti-Malware Free (www.snipca.com/16711) for quick, automatic malware scans that help you stop dodgy processes from working your processor, memory and OS to death.



Kill processes that other software can't stop using Process Hacker's Terminator tool



Use Windows' Disk Defragmenter tool to set or change an automatic defrag

Defrag automatically – even in Windows XP

Remember defragging? Defragmenting, as it's properly and tongue-twistingly called, used to be an essential part of PC maintenance. In Windows XP and earlier, you had to defrag your hard drive to clear the digital junk that got left behind after you deleted files or moved them around. It was like hovering the floor after tidying a room.

Windows 7 and 8/8.1 now defrag automatically (unless you've got an SSD – we'll come to that in a minute). The defrag is usually set to run in the middle of the night every Wednesday (see screenshot above). You can change the schedule in the Disk Defragmenter tool. Type defragmenter into Start and press Enter, then click 'Configure schedule'. To run a manual defrag at any time, click 'Defragment disk'.

You can set an automatic defrag in Windows XP, too, but it takes a bit more legwork. Go to Scheduled Tasks in the Control Panel, click Browse and type %systemroot%\system32\defrag.exe under 'File name', then click Open. Select Weekly, then choose your defrag day, enter your Windows login details if prompted and then save the scheduled defrag to your hard drive.

Don't attempt to defrag an SSD (solid-state drive). It'll do more harm than good. If you decide to extend your PC's life by installing an SSD, Windows will automatically switch off the scheduled defrag. See page 56 for more on SSDs.

Computer active

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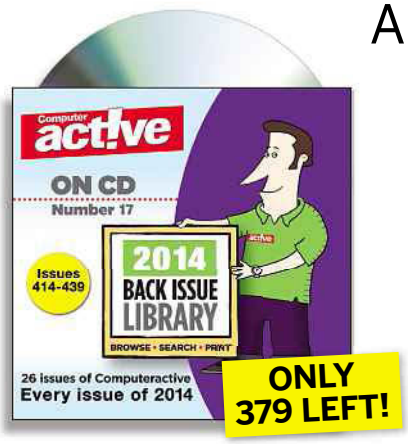

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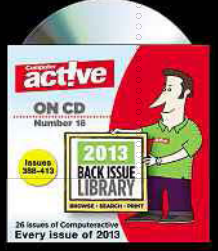


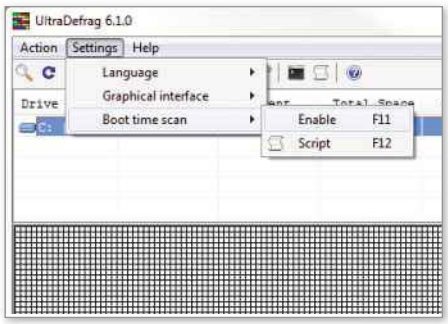
Get a better boot defrag than Windows

A boot defrag tidies up your PC's digital data while the OS is starting, so it's more thorough than a normal defrag. Windows 7 and 8/8.1 runs a boot defrag automatically every time you switch on your PC – but it's not very good.

When a boot defrag is done properly, it's too intensive to run every day. Switch off the Windows boot defrag, then use a third-party tool to run a proper boot defrag no more often than once a fortnight.

To disable the Windows boot defrag, you'll need to edit the Registry. Type regedit into Start (Windows 7 or 8/8.1) and press Enter, then navigate to **HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Dfrg\BootOptimizeFunction** and change the 'Y' (yes, enabled) to 'N' (no, disabled).

Then download the installable version of UltraDefrag (www.snipca.com/16714). UltraDefrag is open-source and properly free, and never nags you to upgrade to a 'pro' version – unlike the better-known Defraggler (www.snipca.com/16713).



Set UltraDefrag to run when you boot Windows to keep your hard drive working well

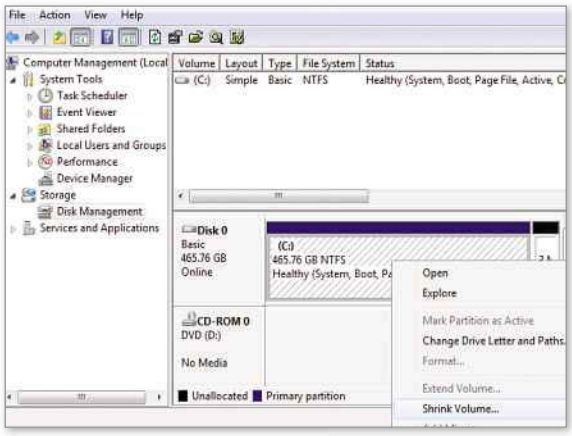
UltraDefrag has a portable version too, but portable programs can't run automatically when you start your PC, so they can't support boot defragging. UltraDefrag's installer contains some tick boxes, but they're not for adware, just program components such as 'Context menu handler' and, crucially, 'Boot'. In the program window, click Settings and then 'Boot time scan' to set up your defrag.

You can run UltraDefrag from the command line for minimal impact on your processor and OS. Switch on a boot defrag using the command 'boot-on', and then switch it off with 'boot-off'. There's a list of all available commands on the excellent UltraDefrag Handbook (www.snipca.com/16715). For tips on running programs from the command line using Command Prompt, see Microsoft's website (www.snipca.com/16716).

Double your hard drive's life with a partition

The most dramatic ways to improve your PC's lifespan depend on what state the hard drive is in.

If it's a mess – making horrible noises (like these: www.snipca.com/16718) and corrupting your files – then wipe it or replace it. Our cover feature in Issue 444 explained how to wipe your hard drive and re-install Windows. On the next page we'll offer tips on upgrading to a new drive.



Use the built-in Computer Management tool to shrink and partition your hard drive

If, on the other hand, your hard drive is still in good nick and you want to ensure it lasts as long as possible, partition it. This means you divide the single drive into multiple partitions (or 'volumes') that work separately from each other. If you keep your OS and programs on one partition, and move all your space-hogging personal files (videos, photos, documents and so on) on to another partition, your OS will boot and work much faster as a result. This, in turn, frees up your processor and memory to work better, move faster and live longer.

You can also set up an emergency partition that contains a stripped-down copy of Windows, a few security tools and your licence information. Then, if your system conks out unexpectedly, you can use the emergency partition to salvage your computer.

First, back up all your important data. The partitioning process shouldn't delete any files, but backing up is a good habit to get into when working with your hard drive. Next, type computer into Start (Windows 7 and 8/8.1) and click Computer Management in the results. Click Disk Management on the left to see a list of your existing drives (including 'C:', where your OS should always be) and any existing partitions.

Right-click a drive that contains free storage space, select Shrink Volume and wait a minute for the wizard to open, then enter roughly the amount of space you want to free up for the new partition. The cleared space should then show up in the Disk Management window as Unallocated Space (with the black bar across the top). Right-click it, select New Simple Volume and click through the remaining steps of the wizard. The steps are explained in full on Microsoft's site (www.snipca.com/16719). ▶

MAXIMISE YOUR LAPTOP'S LIVES

You laptop has three 'lives': the lifespan of the computer itself, the lifespan of the battery before it has to be replaced, and the somewhat shorter 'life' of the battery before it runs down and needs plugging in. Here's how to keep them all going.

BATTERY LIFE

Your laptop's display gobbles up a disproportionate amount of battery life, so reduce screen brightness and set the display to turn off after a few minutes. Disable Bluetooth and, if not needed, Wi-Fi.

BATTERY LIFESPAN

Treat the battery well, and you can get hundreds or even thousands of charges from it (www.snipca.com/16720). Avoid letting it run down to 0 per cent, and calibrate it every couple of months (see more tips at www.snipca.com/16738).

LAPTOP LIFESPAN

Laptops are harder to upgrade than desktops, and their portability can be their downfall – hard drives tend not to survive being dropped on the kitchen floor. That said, you can extend a laptop's lifespan using the software tips in this feature and by keeping it well ventilated.

FIVE HARDWARE UPGRADES WORTH PAYING FOR

1 Install an SSD

Cost: £50–£100
Years added to your PC's life: 5+

SSDs (solid-state drives) are getting plenty of attention, not least in the pages of *Computeractive* (see Issue 443 for a step-by-step guide to fitting one). The fuss is deserved, because an SSD is the best – and best value-for-money – hardware upgrade you can give your PC.

SSDs replace mechanical hard drives like the one that's gradually falling to bits inside your computer. Mechanical hard drives are extremely fragile but SSDs are built to last (they really are 'solid'), and they're much, much faster. They also help your processor survive longer by making it work less hard.

Optimise your new SSD, even in XP, by running Corsair's SSD Toolbox

You can get a decent SSD for under £50 (www.snipca.com/16724), but it won't have much storage space (200GB if you're lucky). High-capacity SSDs are disproportionately expensive (£300 for a 1TB drive? No thanks), but you don't need one of those. Instead, install a relatively low-capacity SSD as your main hard drive for your OS and programs, and keep your personal data (photos and so on) on external hard drives. You can buy a 2TB external drive for around £60 (www.snipca.com/16731).

SSDs are easy to install in Windows 7 or later, and not impossible to fit in an old XP or Vista computer. You'll need to disable Windows defrag tools and use a Trim tool to optimise the drive. Trim is built into Windows 7 and 8/8.1; in XP and Vista you'll need a third-party Trim tool such as Corsair's free SSD Toolbox (www.snipca.com/16727).

Before you go anywhere near your hard drive, or try any of these upgrades, back up all your data – so you may want to buy in more than one of these external drives.

2 New processor

Cost: £40–£100
Years added: 5+

A dual-core Intel processor can make your PC work like new for under £50

Processors vary widely in price. It's not a simple matter of getting what you pay for – it depends how you use your PC. If you're a congenital multi-tasker and love editing video, a cheap processor is a false economy. Conversely, the latest eight-core, 4GHz, 8MB-cache processor is a total waste of money if you only use your PC for emails.

'Core', 'GHz', 'MB-cache'? It's needlessly confusing. Higher numbers basically mean more power. Old processors had one core; new processors have two ('dual-core', from £50) or four ('quad-core', £100–£200). Processors for show-offs have eight cores or even 12, but diminishing returns set in after four. Dual-core is enough for most of us, and quad-core if you're that video-loving multi-tasker.

The GHz number is the clock speed. Between 2 and 3GHz is fine for most uses. The cache size matters if, again, you use lots of programs at once; go for 3MB or more. We've narrowed down the selection on Amazon to give you an idea (www.snipca.com/16736).

Find your PC's user manual on free website Manuals Online

3 New optical drive

Cost: £10–£40
Years added: 3+

Does your PC's DVD/CD (optical) drive still work? You may not know or care, but that drive will suddenly be invaluable when you need to re-install Windows or other software from a disc.

Optical drives are cheap (www.snipca.com/16732) and easy to replace. If you can, spend a few extra pounds on a drive that lets you watch and record (write) to Blu-ray as well as DVD and CD, and does so quickly (24x). That way, you can use your PC as a TV recorder and Blu-ray player just by adding a Scart cable.

4 More RAM

Cost: £20–£40
Years added: 1+

RAM memory is an inexpensive upgrade that only really makes a difference to your PC's speed and lifespan if its RAM was on the measly side to begin with. Check your System Diagnostics Report (page 51) to see how much you've got. If it's under 1GB, install a new 4GB stick of RAM (DDR3 or DDR4 for best results). There's a selection on Amazon (www.snipca.com/16737).

5 New graphics card

Cost: £40–80
Years added: 3+

Don't blame your processor if your PC struggles to play videos smoothly. You probably just need a new graphics card (GPU). Newer PCI 3.0 cards are backwards-compatible. Check your PC's power connections (6-pin or 8-pin) before you buy.

As with all the upgrades we've mentioned, don't shell out until you've checked your PC's user manual. If you've lost it, find a free copy at Manuals Online (www.manualsonline.com). ca

NEXT ISSUE On sale Wednesday 24 June

ON SALE 24 Jun

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Bring back lost **Windows Games**

The old computer games are the best. **Kat Orphanides** shows you where to find and play the classic games Microsoft dumped

Bring back Solitaire in Windows 8/8.1

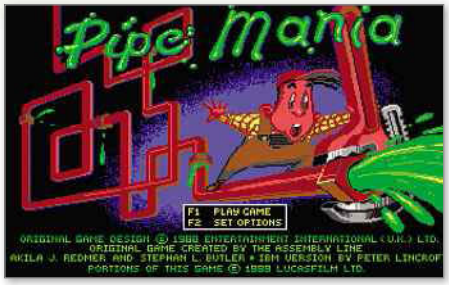
Microsoft has promised to bring back Solitaire in Windows 10 after ditching it in Windows 8/8.1, which is fine for those who plan to upgrade. But what about the rest of us? Fortunately, you can download it as a free Windows 8/8.1 app from the Microsoft Store: see www.snipca.com/16595 for instructions (you'll find Minesweeper here, too). The game has many more variations than the XP version, and you can even join an international Solitaire tournament to celebrate its 25th anniversary.

The Microsoft Store also has free Windows 8/8.1 versions of Mahjong (www.snipca.com/16597), Jigsaw (www.snipca.com/16598) and Sudoku (www.snipca.com/16599). If you're a competitive type and love Scrabble and the TV show *Countdown*, try the global wordsearch hit Wordament (www.snipca.com/16600).

You can still play Microsoft's classic Minesweeper for free in Windows 8/8.1

Play MS-DOS and Atari games online

The Internet Archive recently unveiled a collection of more than 2,000 games from the 1980s MS-DOS era that you can play online (www.snipca.com/16602). Some of our favourites include strategic board game Hexxagon (www.snipca.com/16603); pipe-placing puzzle Pipe Mania (www.snipca.com/16604) and artillery fire game Scorched Earth (www.snipca.com/16605). You can't download the MS-DOS games, but even if you could, the files wouldn't play in modern versions of Windows unless you install a complicated emulator such as DOSBox (www.snipca.com/16601), which The Internet Archive uses. The Archive also has thousands of more recent Windows games to download for free, from collections such as Classic PC Games (www.snipca.com/16607).



MS-DOS games such as Pipe Mania are now free to play online at The Internet Archive

If it's consoles you're pining for, play Atari and Sega games free online in The Internet Archive's Console Living Room (www.snipca.com/16612). Also check the Internet Arcade collection (www.snipca.com/16610) for arcade classics including Tetris (www.snipca.com/16611). Sound is muted by default, so you'll have to unmute and reload to enable it.

Beyond The Internet Archive, there are some great free point-and-click adventure games to play online at (http://sarien.net), and a 30th-anniversary text adventure version of *The Hitchhiker's Guide to the Galaxy* on the BBC's website (www.snipca.com/16606).

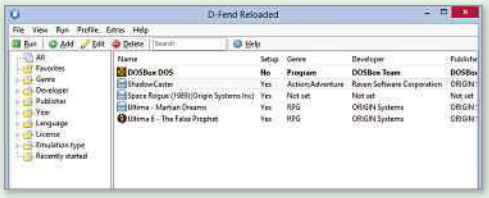
Download free games to keep

GOG (Good Old Games, www.snipca.com/16613) has forged relationships with publishers to help release classic games. There are hundreds to download free in categories ranging from simulaters to role play. Most run on Windows 7 and 8/8.1; many also work on XP and older. You have to register, but it's free and the games are fast and smooth.

We also found some great games that have been released for free by their authors. For example, the strategy game Railroad Tycoon (www.snipca.com/16614), platform shooter Abuse (www.snipca.com/16615) and puzzle game The Lost Vikings (www.snipca.com/16616). ca

PLAY IT SAFE - AND LEGAL

Pirate versions of old games have been available online for years and dubbed "abandonware". Some of the games and the sites distributing them contain malware, and they're not worth the risk.



We recommend sticking with free web-based games and non-profit collections such as The Internet Archive, which posts content that's no longer under copyright and therefore completely legal to download. Also check Wikipedia's list of commercial games that are now available to download and play for free (www.snipca.com/16608).

Be aware that you'll need the DOSBox emulator to play many games that are now out of copyright. DOSBox is complicated to set up – so much so that there are dedicated programs whose sole purpose is to simplify the process, such as the free D-Fend (www.snipca.com/16609, see screenshot).

Use your PC as a **Secretary**

Is your PC a mess? **Jane Hoskyn** reveals the best free tools to help organise it

Wasn't technology supposed to make life easier? By this point in the 21st century, we were supposed to have robot servants and automated butlers. Instead, *you* are a servant to your PC. All those hours spent organising documents, typing emails and trying to keep your head above a messy flood of files. It's time to ease your workload as we reveal how to make your PC do its own boring chores.

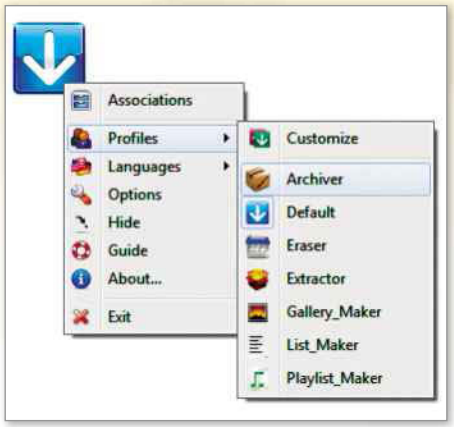
Make your PC organise your files

Organising files and folders is an important job. If you ignore it, your hard drive will end up like a digital skip, and you'll struggle to find important documents at crucial moments.

Free open-source tool DropIt (www.dropitproject.com) takes the load off your hands and does it very efficiently. Its main function is to automatically move files or folders to a folder of your choice. For example, you can tell it to move any Excel file it finds on your PC to a folder called 'Spreadsheets' (or whatever you name it). It can also rename files transferred from your phone or tablet and sort them into an automatically-created folder; compress files or folders into ZIP and other archive formats and then extract them when needed; encrypt and decrypt files that meet certain specifications, and much more besides (click the Features link on the website).

There's also a DropIt wiki site (www.snipca.com/16577) with articles such as 'How to Automatically Scan Folders' and 'How to Organize Images by Date and Properties'. There are more links down the left-hand side of the wiki's homepage, including 'Create lists of files', 'Create playlists of mp3' and 'Use to send files by mail'. This really is a brilliant tool, and it won't demand payment at any stage.

To download DropIt, click Download and then click Installer Package or Portable Package. Launch either version and you'll see a blue arrow icon floating above your open windows. Click and drag the arrow to anywhere on your screen, then right-click it and choose an option to get started. The Profiles option (see screenshot above) is the most useful. Here, you can organise files, create archives and even make galleries using your photo files. For much more information, see the DropIt Crash Course (www.snipca.com/16579).

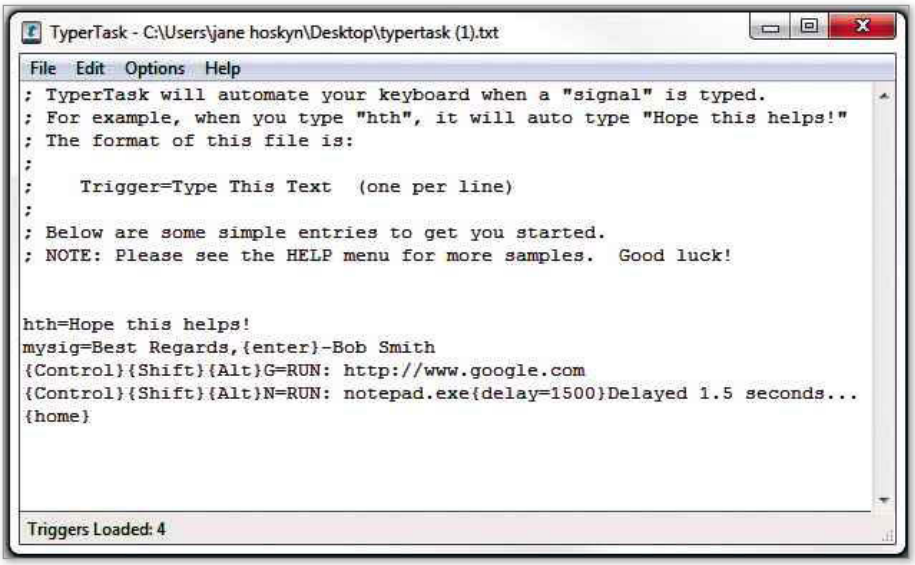


Right-click the DropIt arrow to sort, rename and archive your PC's files

Make your PC do the typing

TyperTask (www.snipca.com/16583) is a free, portable tool that types text for you. When you run it, TyperTask automatically enables dozens of keyboard shortcuts for common words and phrases. You hit the shortcut, and TyperTask 'types' the full word or phrase. It's essentially a typing simulator, and could be enormously helpful for anyone whose fingers aren't as nimble as they used to be.

Click the little 'Download (53k)' link next to the second program listed on the page, then run the program. While the program is running (it uses very little memory) its shortcuts work in any program where you can produce text, such as Word, your email program or your browser. For example, if you type hth, the words 'Hope this helps!' will be

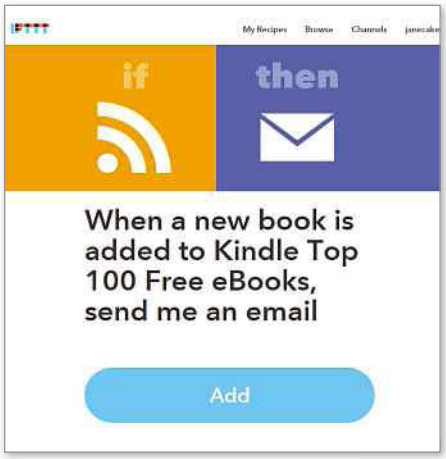


Give your fingers a break and get TyperTask to do your typing for you

AUTOMATE YOUR LIFE WITH IFTTT RECIPES

The other tools we've mentioned can organise your PC, but only IFTTT ('If This, Then That', https://ifttt.com) can organise your entire digital life. Sign up for free, then connect your apps and accounts using 'recipes' that automatically carry out an action in response to a certain trigger. Here are 10 of our favourites.

1 Download a random Wikipedia article every day www.snipca.com/16643
2 Get an alert when you switch from Wi-Fi to mobile data www.snipca.com/16648
3 Download Facebook photos you're tagged in www.snipca.com/16647



4 Get an email when a free ebook is added to Kindle Best Sellers www.snipca.com/16636 (see screenshot)
5 Find your phone by sending an email to make it ring www.snipca.com/16644
6 Deliver yesterday's BBC News to your Kindle www.snipca.com/16638
7 Get an alert to cover your plants if frost is forecast www.snipca.com/16641
8 Log all your phone calls in Google Drive www.snipca.com/16645
9 Get an email with today's sunset time www.snipca.com/16642
10 Save *National Geographic's* Photo of the Day' to Dropbox www.snipca.com/16649

generated on screen. It's rather disconcerting at first but potentially very useful, especially once you start creating keyboard shortcuts for your address, name and basic email responses.

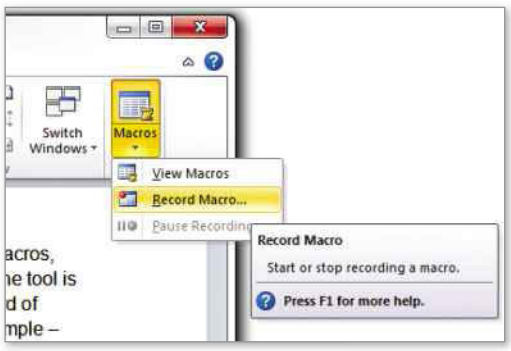
To see all the shortcut presets and find out how to create your own, click Help in the TyperTask window and then click Help Reference.

Make Office edit your documents

Macros are tiny scripts that do boring and repetitive work for you in Word and Excel (Office 2007 and later). First record yourself doing a certain tedious task – making every other word bold in a long document, for example – and save the recording as a macro. Next time you want to carry out that action, run the macro and the job will be done in no time.

The steps for recording and running a macro are slightly different according to which version of Office you're running (2010 in our screenshot below), but the basic process is pretty much the same. Microsoft explains how to use macros in Office 2007 (www.snipca.com/16626), 2010 (www.snipca.com/16627) and 2013 (www.snipca.com/ 16628).

If you create lots of macros, give them different names so you'll know which does what. You can even write your own macro from scratch, but this would require some programming know-how. If you really get into writing automation scripts, look at the free program AutoIt (www.snipca.com/16623), which lets you create scripts for any PC task. You can then convert the scripts into portable EXE files that you can store on a USB stick and run instantly on any computer.



Record macros to automate boring tasks in programs such as Word and Excel

Make your PC save your clippings

Windows Clipboard is one of those built-in tools you take for granted until things go wrong, such as when you accidentally overwrite text by pressing Ctrl+V when you meant to press Ctrl+C, and only realise once you've saved the change. That's it, gone forever – unless you're using ClipX (www.snipca.com/16650), a simple free tool that lets you access your clipboard history.

ClipX runs quietly in the background, storing all your cuts and copies until you press Ctrl+Shift+V to open your Clipboard history. You Use your arrow keys to select the text or photo you'd copied and overwritten, then press Enter to copy it back to your Clipboard, ready for pasting into any supported program. You can re-copy something you cut or copied to it days or weeks ago, even if you've copied many other items since.

Access your clipboard history using free tool ClipX

Make your PC clean up after itself

You could diligently run CCleaner, AdwCleaner and Defraggler before switching off your PC every night or once a week – or you could let TinyTask (www.snipca.com/16582) do it for you.

TinyTask might be small but it has lots of uses, including running other software automatically

This free, portable and tiny (33KB) tool has a program window so small you'll chuckle the first time you run it (see screenshot above), but it's packed with potential, including the power to automatically run any software on your PC according to settings that you decide. Click the blue button in the middle to start recording actions in any program, then save your resulting macro as an EXE file to run whenever you want. ca

PART 1

Get your PC ready for Windows 10

In the first part of a new series preparing you for the launch of Windows 10, **Jonathan Parkyn** reveals how to find out if your PC is ready for the big upgrade

Will you qualify to get Windows 10 for free?

Microsoft has stated that it will offer a free upgrade to Windows 10 for "qualified" new or existing Windows 7 and Windows 8/8.1 PCs that upgrade during the first year after the 29 July launch (see News, page 6). Moreover, the upgrade will remain free for those who carry it out, meaning there won't be any hidden costs down the line.

It doesn't matter whether Windows 7 or 8/8.1 came pre-installed on your PC or you upgraded to these versions of Windows from an older version.

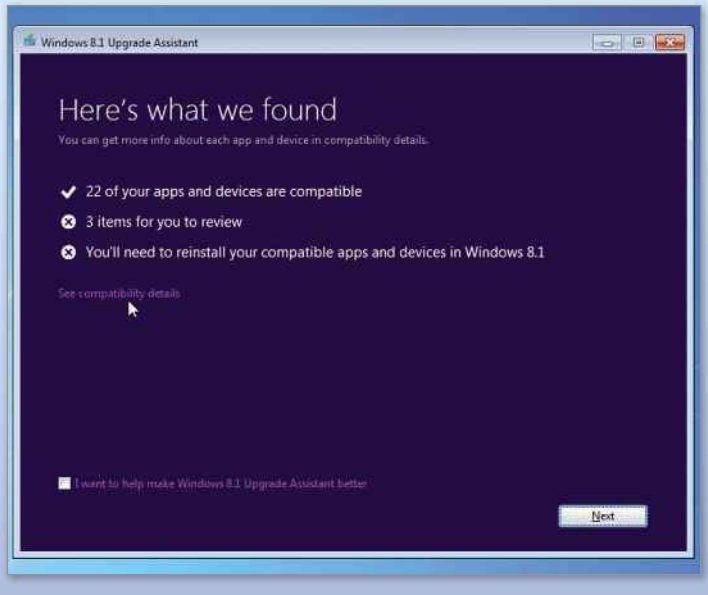
Windows 8/8.1 and Windows 7 Home Basic and Home Premium PCs are likely to upgrade to Windows 10 Home, and Windows 8/8.1 Pro and Windows 7 Professional and Ultimate PCs to Windows 10 Pro (www.snipca.com/16722).

Bear in mind. Windows 7 users will need to have updated their system to Service Pack 1 (SP1) and, if you're running Windows 8, you'll need to update to 8.1 before you'll be eligible to download and install the upgrade. Both the SP1 and 8.1 updates are free. Unfortunately, some versions of Windows 7 and 8.1 are excluded from the Windows 10 offer. If you're running the Enterprise edition of either, or the RT version of Windows 8.1, then you're out of luck.

If you're running Windows XP or Vista, or if you're considering building a PC from scratch, then you'll need to pay for a copy of Windows 10. Microsoft hasn't released any pricing information yet, but leaks suggest it will cost $109 (about £72) for the Home version and $149 (about £98) for Pro.

Will your PC be able to run Windows 10?

If your computer is already running Windows 7 or 8/8.1, then it will almost certainly be able to run Windows 10. Users of older machines should note, however, that Windows 10 will require a 1GHz (or faster) processor, 1GB of RAM for the 32bit version (2GB for the 64bit version), 16GB free hard-drive space and a DirectX 9-capable graphics card that supports display resolutions of at least 800x600 pixels.



Use the Windows 8 Upgrade Assistant tool to find out if your hardware meets Windows 10's minimum requirements

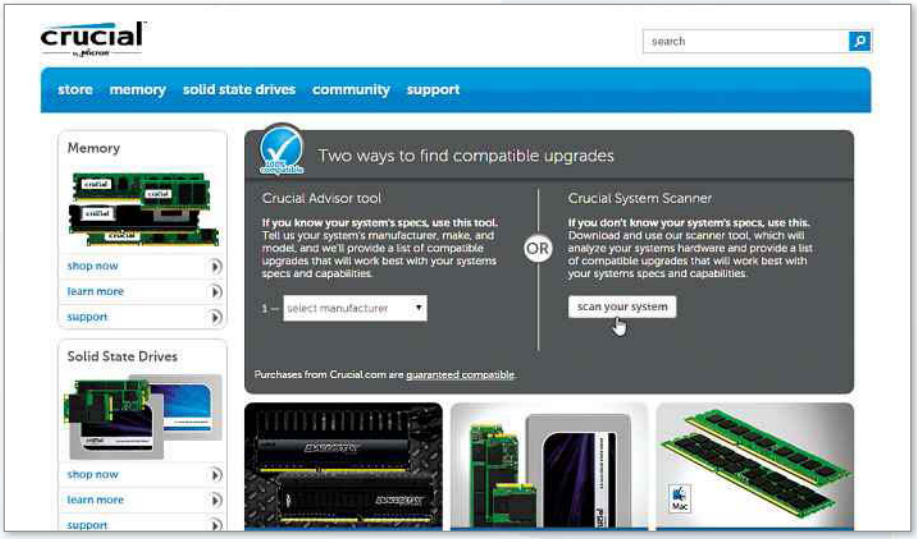
You'll also need an internet connection and a Microsoft account. If you don't have the latter you can sign up for free (https://login.live.com).

If you're in any doubt about whether your current PC meets Windows 10's hardware requirements, download and run Microsoft's free Upgrade Assistant tool (Windows 7 www.snipca.com/16653; XP and Vista www.snipca.com/16654 – these automatically download to your PC). The Assistant is designed for upgrading to Windows 8, so ignore the advice about programs and apps. But if the tool gives your PC's hardware the all-clear for Windows 8, then you'll be fine for Windows 10 as well.

Can you upgrade your PC to meet the requirements?

If you've got less than 1GB of RAM, it's relatively simple and cheap to add more. You'll need to find out how much your PC can take and what type of memory modules it's compatible with – the easiest way to do this is to run the Crucial System Scanner (http://uk.crucial.com). Click 'scan your system' and follow the prompts. You don't have to actually buy the memory from Crucial, so feel free to shop around for the best prices once you know what you need – 2GB of DDR2 memory shouldn't cost more than about £15.

It's also fairly easy to upgrade your hard drive if you're short on space. A brand-name 500GB hard drive will cost you less than £30 online, though you may want to switch to an SSD



Memory is easy to upgrade – find out what you need using Crucial's System Scanner tool

for a massive speed boost (see our feature on page 56 of Issue 443).

The one exception here is the processor. It's technically possible to upgrade this, but there are so many potential pitfalls that it's usually not worth considering.

Can you upgrade for free from the Windows 10 Preview?

If you have been trying the Windows 10 Technical Preview, hopefully you've followed our advice and installed it on a virtual PC or a separate partition of your hard drive, rather than installing it over your existing version of Windows. If not, things could end up being a lot more complicated when it comes to installing the final version. The free upgrade won't be offered via Windows Update if it can find no trace of a qualifying Windows 7 or 8/8.1 licence on your PC, so you may have to wipe the Windows 10 Preview, reinstall the previous OS, update it, then upgrade it.

Windows 10 Technical Preview doesn't qualify for the free upgrade offer, so you may need to reinstall your old OS

Will you need anything else?

Windows 10 brings with it a number of great new features, but some of these require additional hardware. For example, to get the most out of Cortana (Microsoft's voice activated personal assistant), you'll need a microphone and speakers in order to talk with her. Many PCs come with these, but if yours came without, you could use a Skype headset instead, if you have one. An external USB webcam will also add a mic.

Microphones and speakers are cheap and easy to add separately. You can buy a basic Trust PC microphone for a couple of pounds on Amazon (www.snipca.com/16651 – see photo below), while simple speakers start at around £12.

Windows 10's new Edge browser (www.snipca.com/16657) has a brilliant feature called Web Note, which lets you write notes or highlight items directly on any web page. Unsurprisingly, this works best on touchscreen devices, using your fingers. It's possible to make web notes using a mouse too, but a pen and tablet input device (such as Wacom Intuos, £60 from www.snipca.com/ 16655) might be better if you're planning to use this feature regularly on a desktop PC. Some features of Windows Hello (www.snipca.com/16658), a new biometric (face, iris or fingerprint) recognition security feature, will require special hardware too.

If you want to talk to Cortana, you'll need a microphone connected to your PC

When and how can you upgrade?

Currently, Microsoft is saying that Windows 10 will be released at some point "this summer" across 190 countries. We still don't have a specific UK launch date, but late July would seem a good bet.

We also know that Windows 10's release will be staggered. The Desktop (PC and tablet) version will be the first to launch, with other platforms (including Windows Phone and Xbox One) following later in 2015.

For Windows 7 or 8/8.1 owners qualifying for the free upgrade, Windows 10 will be offered directly via Windows Update. For everyone else, it's likely that Windows 10 will be widely available in physical (disc) formats, as well as digitally as a download from the Microsoft Store (www.snipca.com/16652). We'll be explaining how to prepare for and carry out the upgrade process in much more detail closer to Windows 10's launch. ca

SHOULD YOU BUY A NEW PC NOW OR WAIT?

It's entirely up to you. If you buy a Windows 8.1 PC now, you'll qualify for the free upgrade when Windows 10 is finally launched. Thanks to the Windows Update delivery system, carrying out the upgrade yourself when the time comes should be fairly painless.

It's highly likely that some manufacturers and retailers will begin heavily discounting their current Windows 8.1 devices to encourage buyers, so they can shift existing stock before the new generation of Windows 10 PCs hit the shelves. So, from a financial perspective, now could be a very wise time to buy. But as we explain in our Cover Feature, your existing PC may be all you need – and it might last much longer than you realise. Turn to page 50 to find out more.

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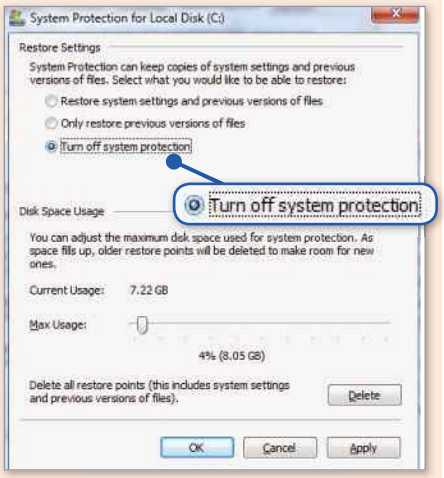
Problems Solved

PROBLEM OF THE FORTNIGHT

How do I shrink a partition that refuses to shrink?

Q I was very interested in the Workshop in issue 444 about dual-booting Windows 10 with Windows 7 – and wanted to try it. However, I encountered a problem when trying to create a partition on the C: drive of my Windows 7 laptop. I don't seem to be able to shrink the volume. When I try, I get an error message that says: "You cannot shrink a volume beyond the point where any unmovable files are located". The Shrink button is greyed-out and only the Cancel button is available. What's the problem and how do I deal with it?

Dave Ankers



If you have problems dual-booting turn off system protection via your Control Panel

A This is because your C: drive contains one or more 'unmovable' files, created by System Restore or as a side effect of allowing your PC to enter Hibernation mode or letting it make use of so-called virtual memory, which is really just a big file stored on your drive. When Windows 7's built-in partitioning tool encounters these files, it simply will not work – and that's your problem.

Some specialist partitioning tools can deal with some of these unmovable files, but you can actually get Windows 7's own utility to do the job, if you disable the various tools and services that leave these files in place.

First, back up your PC. Next, click Start and type cmd into the search bar. Now right-click 'cmd.exe' under Programs and choose 'Run as administrator'. If the User Account Control box appears, click Yes to let it run. In the Command window that appears, type powercfg /hibernate off and press Enter. Now type exit and press Enter.

Next, disable System Restore. Click Start, Control Panel and then 'System and Security' followed by Security. Now click 'System protection' in the left-hand pane. In the System Protection tab of the System Properties dialogue box, select the C: drive in the Protection Settings list then click Configure, select the 'Turn off system protection' button (see screenshot) then click Apply followed by Yes to confirm. Click OK, leaving the System Properties dialogue box open.

In the System Properties dialogue box, choose the Advanced tab and click the Settings button in the Performance tab. Now select the Advanced tab In the Performance Options dialogue box and, in the 'Virtual memory' section, click the Change button. Clear the tick from the 'Automatically manage paging file size for all drives' box, select the C: drive from the list below then choose the 'No paging file' button. Click OK three times to close all dialogue boxes. Now restart your PC and you'll be able to partition your drive as per our instructions in Issue 444.

When you've finished, you'll probably want to reverse all these changes. To do so, just repeat these instructions, working backwards. When it comes to re-enabling Hibernate mode, you'll need to modify the instruction you type into the Command window – it needs to be powercfg /hibernate on.

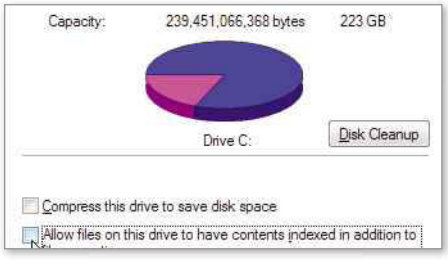
How do I move applications off my SSD?

Q My Windows 7 desktop PC has a 120GB SSD, which makes for a speedy startup. However, while most applications let me choose the installation destination, not all do, so this C: drive is filling up. Is there any way to move these applications on to another drive? I've tried to move some games without success. Also, right-clicking C: and choosing Properties tells me I have used 110GB, but when I do the same for each folder and add it all up the total only comes to 36GB, so I'm missing a load of space. Any ideas?

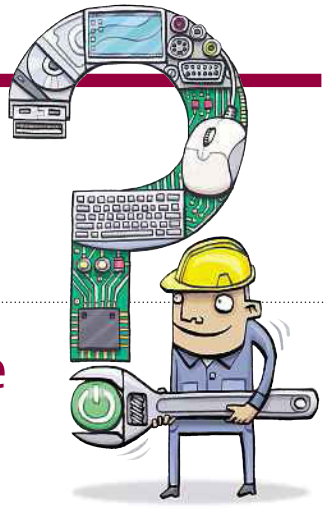
Neil Dryden

A Moving Windows applications is not to be attempted manually. There are some programs designed to do the job automatically, such as Application Mover, a free download from www.snipca.com/16277 – but even these must be used with caution. Be sure to back up your PC before trying it, and read thoroughly all the instructions and any warnings.

As for the missing space, Windows harbours numerous hidden folders and files whose capacities won't have been factored in when you calculated the total of the visible content. Begin by disabling Windows' indexing service, which isn't much use on an SSD. Right-click the drive and choose Properties. Now select the General tab and click the tick from 'Allow files on this drive to have contents indexed in addition to file properties'. Click OK. Also try reducing the storage used by System Restore – see Fast Fixes on page 70.



Select 'Allow files on this drive...' to find out how much space is used by hidden files



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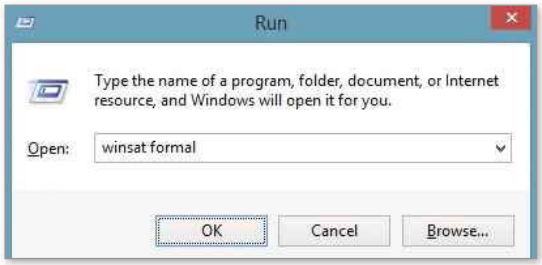
Where is the Windows Experience Index score in Windows 8.1?

Q Issue 448's 'Make your PC faster' cover feature was one of the most useful and comprehensive articles I've read in a long time. I found the details about 'God Mode' to be quite incredible. If only I'd known about this facility before now. There was only one snag: I am using Windows 8.1 and there is no 'Performance Information and Tools' displayed, so I can't view my Windows Experience Index score. Has this been changed or omitted from 8.1?

Eric Barty



Get your Windows Experience Index score in Windows 8.1 by typing this in your Run box

A Yes, it has changed – and we should've pointed this out. Apologies. Microsoft has removed the Windows Experience Index (WEI) score from Windows 8.1, and that includes the disappearance of the 'Performance Information and Tools' heading in God Mode.

The reason for this is that while the original idea behind WEI was sound – it provides users with a 'base score' that helps them decide whether certain software (and particularly games) will run on their PC – the system wasn't popular among software companies, who didn't want to publish recommended WEI scores that might discourage sales.

However, the underlying technology to produce WEI scores still exists in Windows 8.1 and if you're keen to calculate the figures for your PC, you can do so. They're not presented in a pretty interface, as with Windows 7, but they're the same scores.

First, press Windows key+R to open the Run box, type winsat formal (see screenshot) and press Enter. This opens a Command window that fills with text as Windows 8.1 runs the tests to determine your PC's WEI score.

When it's finished, press Windows key+E to launch File Explorer and then navigate to **C:\Windows\Performance\WinSET\DataStore**. Right-click the file called '[DATE AND TIME] Formal.Assessment (Initial).WinSAT.xml' then point your cursor to 'Open with' and click Internet Explorer. Now flip to Internet Explorer, where the file has been displayed. Scroll down to the '<WinSPR>' section and there you'll see the figures that make up your PC's WEI, with the overall system score right at the top.

Will I be able to run Windows 95 programs in Windows 10?

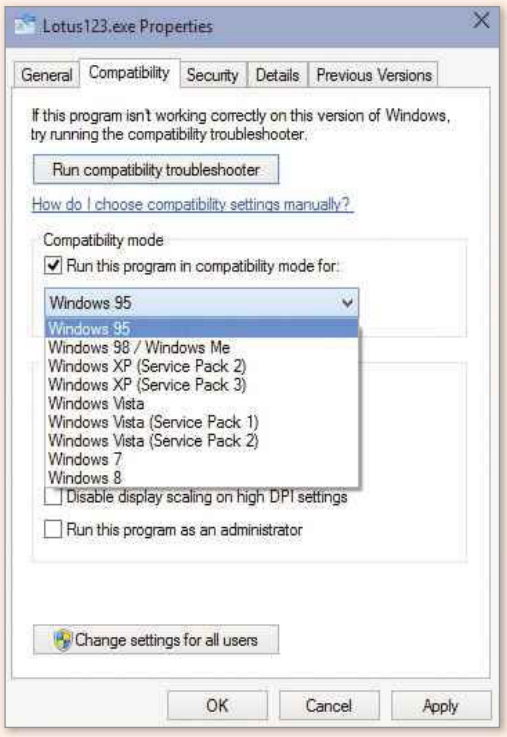
Q This may sound like a stupid question, but will Windows 10 only run on 64bit computers? And if so, I wonder if there'll be any way I can run the Windows 95 version of Lotus 123. I still use this in Windows XP, which runs other old programs that are still vital to me. Is Windows 10 a non-starter for my purposes?

Ian McGarrigle

A Windows 10 Technical Preview is available in both 32bit and 64bit editions, so it's a pretty safe bet that the final version will be too. It also retains the Compatibility Mode that's part of Windows 7 and 8/8.1, so there's a chance you'll be able to get your old programs to run.

This all depends on the program and whether it needs to be installed or runs directly from the program file. First press Windows key+E to launch File Explorer then right-click its setup file (usually called 'setup.exe') or the program file and choose Properties. Click the Compatability tab, tick the 'Run this program in compatibility mode for' box and choose Windows 95 from the dropdown menu. Click OK then try installing or running the program by double-clicking setup.exe or the relevant program file.

But remember, Windows 10 is very much a work in progress. While these features exist in the preview – and we expect them to remain – there's no guarantee that they'll actually be in the final release.



Run older programs in Windows 10 by using the Compatibility mode setting

Problems Solved

How do I uninstall Qwertick?

Q In issue 444's What Should I Download? column you recommended a program called Qwertick (www.snipca.com/15559), which makes a computer keyboard sound like an old-fashioned typewriter. I downloaded this and, yes, it is quite fun, but after a while the novelty wore off and I decided to uninstall it. However, I can find no trace of this program in the Control Panel's uninstaller tool or in the Start menu. There is an icon in the notification area, but that only gives me options to mute the sounds. Can you please advise how to completely remove this program?

Sean McCarrick

A Qwertick cannot be uninstalled because it does not install itself into Windows. Even though you're offered a choice of a 'portable' version or zipped full version when downloading, both actually act as portable programs. The only difference is the full version includes documentation.

So, to stop Qwertick from running click its notification area icon, then click the cross in the little window that appears (see screenshot), or just restart your PC (if you're in the habit of putting it to sleep or letting it slip into hibernation mode, Qwertick will just keep running).

To remove the files from your computer, just use Windows Explorer (Windows key+E) to locate the downloaded files and then delete them.

To stop Qwertick's typewriter sounds click its icon in the notification area

Why can't I forward some of my picture emails?

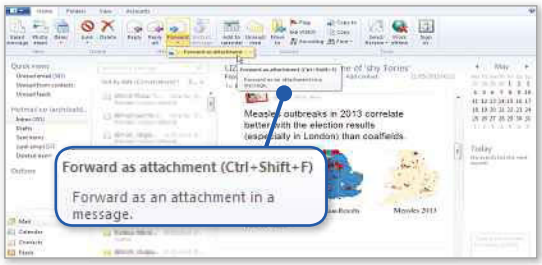
Q I often receive pictures in emails from colleagues and usually pass them on to friends. Sometimes when I try to send the pictures I get an error message saying: "One or more of the pictures in this message could not be found. When you send this message these pictures will not be included". If I send the email, the recipient doesn't receive the pictures. I'm using a 64bit PC running Windows 7.

Geraint Jones

A This is a known bug in Microsoft's free Windows Live Mail (WLM) program. It affects only some messages, which is why you see this message only occasionally.

Until Microsoft gets round to sorting the problem there are a couple of workarounds. The simplest from your perspective is to click the small arrow below WLM's Forward button and choose 'Forward as attachment', then proceed as normal. The recipient will receive an attachment with a .eml file extension. If they double-click this, then the original message will open in their email program, replete with images.

This assumes your colleagues use a Microsoft email program, such as Outlook or WLM. If not, they might not be able to open the .eml attachments. The longwinded alternative is to save each picture from the original message by right-clicking on them and choosing Save Picture As to save them to your computer. Now create a new email, adding these saved images as attachments.

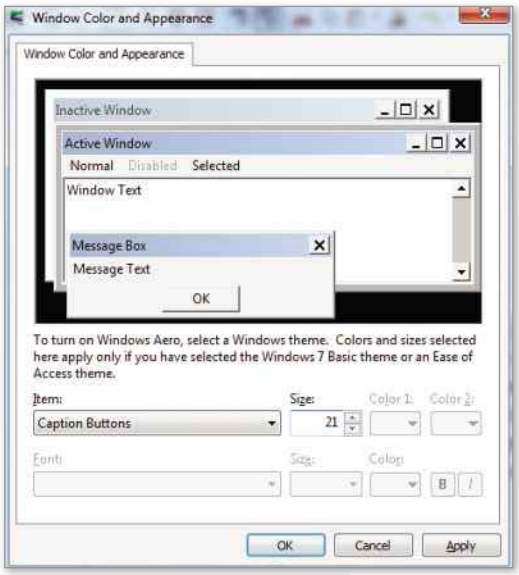


Select 'Forward as attachment' if you get an error message when forwarding pictures via email

Can I make the window controls bigger?

Q I have a Windows 7 PC to which I have recently attached a 24-inch monitor. Everything works well, but with the bigger screen I find that the three little control icons at the top of application windows are just a bit too small for me to comfortably distinguish at my normal viewing distance. It's not a major problem, but I'm wondering if it's possible to make these buttons larger, or at least make the red cross a bit smaller so that I don't accidentally hit it when I want to maximise a window. Is there a way?

Toby Davies



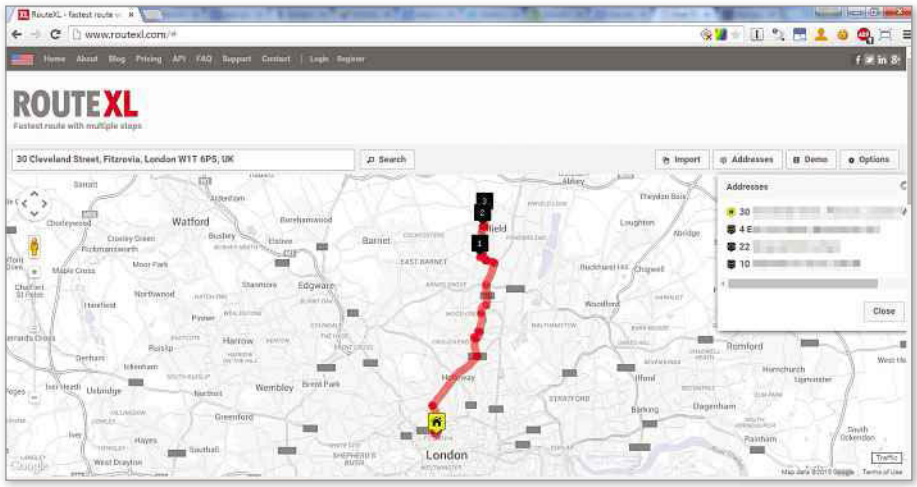
Increase the size of your window controls via your appearance settings

A Yes, it's possible to customise the size of these controls. First, right-click a blank part of the Windows Desktop and choose Personalize. Now click Window Color followed by 'Advanced appearance settings'. In the dialogue box that appears, open the Item menu and choose Caption Buttons. Type a new size into the Size field then click OK or Apply.

Is it possible to plan delivery routes for free?

Q I do a lot of deliveries (spread over about 200 miles) every day as part of my job. Do you know of a tool that would let me enter, say, 15 postcodes and then display the quickest overall route? I know there are paid-for tools, but I don't want to have to pay unless I can help it.

Lyndon Duke



Use free tool RouteXL to work out the best route if you have a number of stops to make

A There are numerous tools that do this, including some free ones. One of the better free examples is RouteXL (www.routexl.com), which uses Google Maps for its maps and navigation information, and its own algorithms for figuring out the best route between multiple destinations.

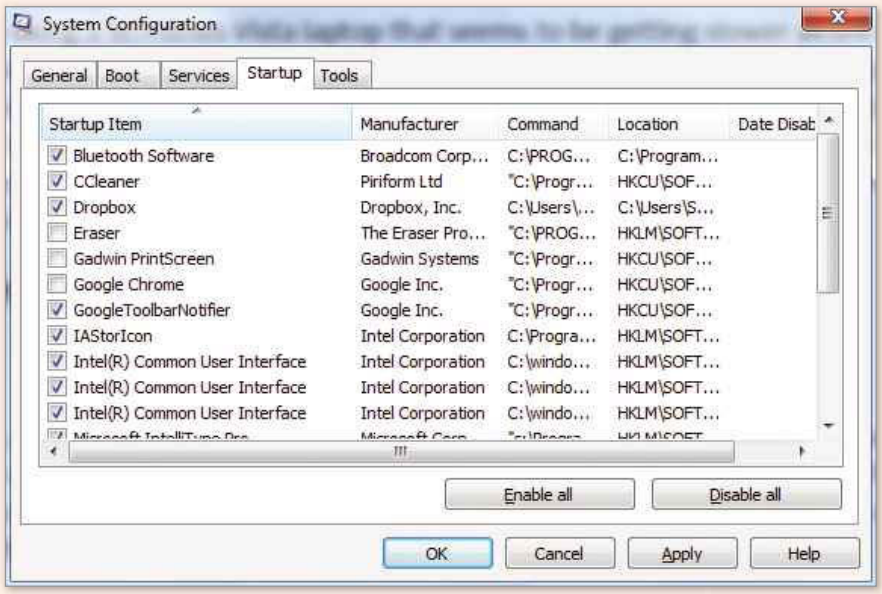
Begin by typing your starting location into the main search bar, then click Search, followed by the 'Start here' button. Now click the Import button, then type your postcodes (or copy and paste them from elsewhere), using the Control+C and Control+V keyboard shortcuts. Next, click the 'Find route' button and sit back while RouteXL figures out the optimum path. If you've got a sat-nav device that supports data files in ITN or GPX format, you can export RouteXL's suggested journey by clicking the Download button.

RouteXL's main limitation is that the free version is limited to 20 stops. That doesn't sound like too much of a problem for you, but if you need more, you can pay a one-off fee of €5 (about £3.50) for up to 100 destinations for one day, or €35 (about £25) for a month's unlimited use.

Will BT Infinity speed up my PC?

Q I'm using a Windows Vista laptop that seems to be getting slower all the time. Windows takes ages to start up, and even launching Microsoft Word seems to takes ages. I have normal broadband from BT, but I keep getting offers from the company about its Infinity fibre-optic broadband, which is apparently much faster. The extra cost puts me off a bit, but I would like to speed up my PC. Would this be a good investment for a performance boost?

Ben Fraser



Make your PC boot faster by unticking Startup items in your System Configuration

A No. While you didn't tell us what speed you're getting from your existing broadband connection, internet speed actually makes little difference to a PC's overall performance. Sure, a faster connection means websites appear quicker and downloads are swifter but otherwise, you won't notice much difference.

This is because many of the things you do on your PC are not reliant on the internet. If Windows and its programs are slow to launch, these problems won't be fixed by fibre-optic broadband.

First off, you'd be far better off conducting a bit of electronic spring cleaning. For example, limiting the programs that start with Windows will do far more to accelerate your PC's startup times than faster broadband. Click Start, type msconfig into the Search bar and press Enter. Now click the Startup tab and look through the list of items. Identify those you don't need and disable them by unticking their boxes. Click OK and restart your PC.

Also check your security software's settings: it could be that it's set to check every program that launches and every file that you open. Enabling exceptions for trusted programs could speed up launch times.

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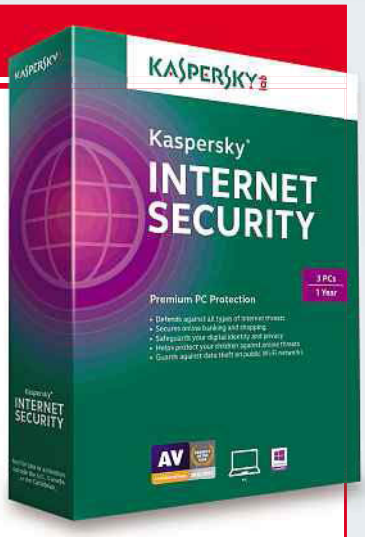

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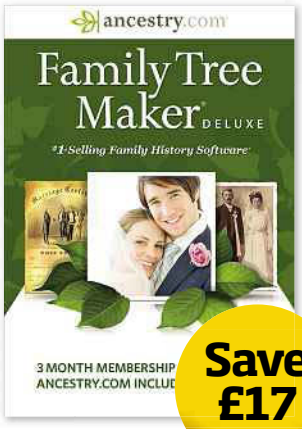

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Can I add GPS to my laptop?

Q **I was interested to read John Ashe's question in Issue 447's Problems Solved (page 65). He said he uses GPS on his PC for planning car journeys and walks. This is of interest to me, so I'm wondering how I can add GPS capability to my own Windows 7 laptop. Or does it have such a feature built in? I know my laptop has other wireless options such as Wi-Fi and Bluetooth. And what software would I use?**

Robert Marsh

A It's extremely unlikely that your laptop has built-in GPS: while this technology is integrated into many smartphones and tablets, the same is not (yet) true of laptops. This is because they don't have quite the same level of portability (it's far easier to mount a smartphone or small tablet to a car dashboard, for example).

However, it's easy and reasonably affordable to add GPS to a Windows PC using a plug-in USB stick. You should look for a device that produces its GPS data in NMEA (National Marine Electronics Association) format, as this is the industry standard. As an example, see this £30 model from Maplin: www.snipca.com/16241.

As for what software to use, the answer depends on what you want to do. Mr Ashe uses Memory-Map (www.memory-map.co.uk): this is a free download but you pay for the maps. Ordnance Survery (OS) Street View maps for the UK, for example, cost £10. Memory-Map has the ability to plan routes and, with a GPS USB stick, it'll deliver real-time navigation instructions.

You could also hook up your PC to a free program like Google Earth (www.google.com/earth) and use your NMEA data to track your position in real time, anywhere on the planet. To do this, open Earth's Tools menu and choose GPS. Now select the Realtime tab followed by the NMEA button and then click Start.

Use Google Earth in combination with GPS on a USB stick to add navigational capability to your PC

How do add album art to my MP3s?

Q **I possess a large collection of MP3 music files on my PC, but none of them have album artwork. Can you recommend a way to embed album artwork into the files?**

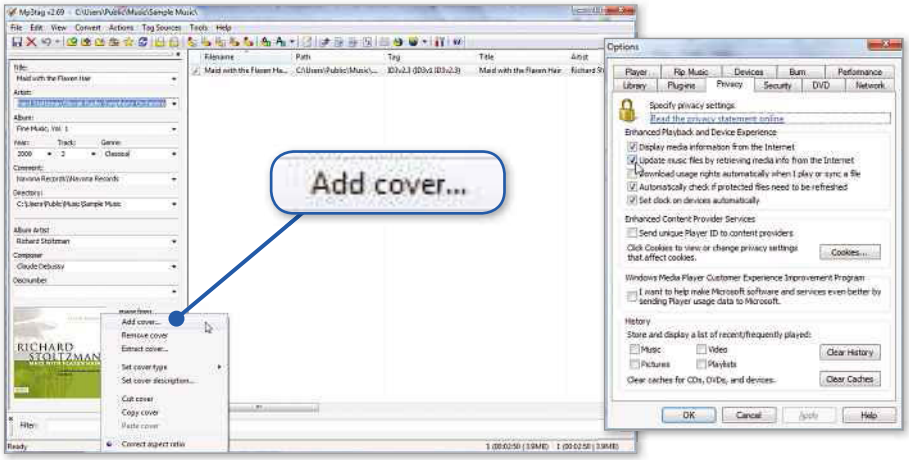
Joe Kelly

A There are numerous ways to add missing artwork to digital-audio files. Do you use Windows Media Player (WMP) or similar for listening to your tunes? If so, you can usually get the software to automatically add missing metadata, such as the recording artist, track title and even album art.

To do this in WMP, open the Tools menu (tap the Alt key if you don't see the menu bar) and choose Options. Now select the Privacy tab and tick 'Display media information from the Internet' and 'Update music files by retrieving media info from the Internet'.

Obviously, this gives Microsoft's servers permission to work out what you're listening to. If you're not happy with this, you can add artwork manually. First, use Google to find a suitable image. Type the album's name, then click Images. Right-click a relevant image and choose Copy or 'Copy image' (depending on your browser). Now, in WMP, double-click in the Library view to select the album or track, then right-click it and choose 'Paste album art'.

If you don't use a PC-based media player but want to add art to display on a portable player, a free tool such as Mp3tag (www.snipca.com/16276) will do the job. Drop the album or track into Mp3tag's main window then right-click the album-art thumbnail at the bottom left. Next, choose 'Add cover' then navigate to an image file on your PC.



Use the free tool Mp3tag to find album artwork for your MP3 files

NEXT ISSUE

ON SALE 24 June

- Why won't my digibox loop through when in standby?
- Can I remove Office from my tablet?
- How do I type emojis in Windows?

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System Restore

Reveal hidden restore points, recover lost hard-drive space and find out why System Restore failed

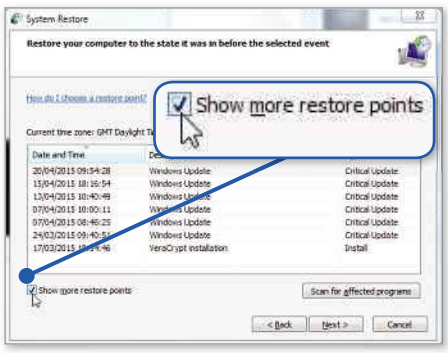
'System Restore did not complete successfully'

If you see this error message after attempting a restore, the process has failed. The cause is often antivirus (AV) software, so disable any security programs running in the background, then try again. Make sure you enable your AV again afterwards.

If it still fails – or you don't know how to stop your AV – then try System Restore in Safe Mode. In Windows 7 and earlier, restart your PC, repeatedly tap F8 then use the arrow keys and Enter to choose Safe Mode from the Windows Advanced Options menu. If you use Windows 8/8.1, press Win+C to open the Charms bar, then click Settings followed by the power icon. Next, hold down the Shift key and click Restart. When the options screen appears, click Troubleshoot, 'Advanced options', then Startup Settings. Click Restart then, when the Startup Settings menu appears, tap F4 to start in Safe Mode.

Restore completed, but it didn't fix all my problems

System Restore doesn't always fix every problem, including any faults that existed before the creation of the most recent system restore point (the one System Restore uses by default). The answer is to try an earlier restore point – but older ones might be hidden. Launch System Restore as normal, but on the second dialogue box tick 'Show more restore points' (see screenshot below left). Select an earlier restore point, then click the 'Scan for affected programs' button to see the extent of the impact this older rollback will have.



Tick this box to access older restore points if the most recent one fails

No restore points available

One possible cause is that you have Windows XP as a dual-boot option alongside a more recent version of Windows, another is that you have System Restore disabled.

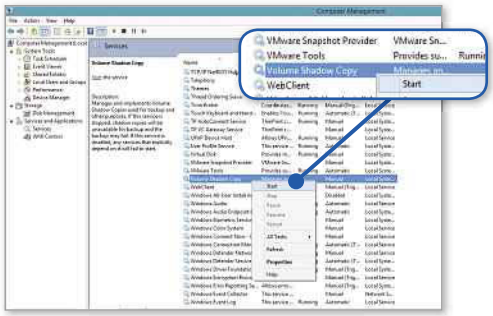
Windows XP deletes restore points from a newer Windows version, but you can prevent this by hiding the latter's installation drive. First, back up your PC. Next, in XP, click Start, Run, then type regedit and press Enter. Navigate to **HKEY_LOCAL_MACHINE\SYSTEM\MountedDevices**. Now right-click on MountedDevices and choose New followed by Key – name this 'Offline'. Select new Offline key, then right-click in the right-hand pane and choose New then DWORD Value. Type \DosDevices\X:, replacing X with the relevant drive letter (such as C for your local hard drive). Right-click this new value and choose Modify. Set the 'Value data' field to 1 and click OK.

If you haven't got a dual-boot system, check that System Restore is enabled. In Control Panel, click 'System and Security' followed by System, and then 'System protection' in the left-hand pane. Choose the relevant drive from the Protection Settings list, click the Configure button then select 'Restore system settings and previous versions of files'.

System Restore won't launch

First, disable your AV temporarily then try launching System Restore again. If this doesn't work, and if you're running Windows 7 type run into Start and press Enter, then type rstrui and press Enter. In Windows 8/8.1, type rstrui in the Start screen and press Enter.

If System Restore still won't launch, check the relevant Windows service is running. Launch Computer Management by typing compmgmt.msc into the Run box or Windows 8/8.1's Start screen. In the left-hand pane, expand 'Services and Applications', then Services. In Windows XP, check that System Restore Services has a 'Started' status; in Windows Vista and later, check Volume Shadow Copy instead. In all cases, if necessary right-click this entry and choose Start. As a last resort, try launching System Restore in Safe Mode (see the first tip).



If System Restore won't start, check Volume Shadow copy in Computer Management

Hard-drive space is disappearing

If your hard-drive space seems to be evaporating, System Restore could be the culprit. Launch Control Panel, click 'System and Security' followed by System, then 'System protection'. Select a drive then click the Configure button. First, check the Max Usage slider and see if the figure there roughly corresponds to your missing drive space. If so, reduce the space available for restore points by moving the slider to the left or click the Delete button to delete all restore points. If you do the latter, click the Create button immediately afterwards to ensure you have at least one restore point.

Next issue Fast Fixes for... VirtualBox

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"What we're looking at here is not only the best choice of ink for the R300 printer, but also the best ink in this group test, period. There's just no getting away from the superb combination of performance and pricing"
- Computer Upgrade Magazine

Total Digital Photography ★★★★★

Ink Test Winner!

Code:	Originals:	JetTec:	Suitable Printers:
T007 Black	£29.99 16ml	£3.99 20ml, 3 for £10.99	Photo 790, 890, 900, 915, 1290
T008 Colour	£23.99 46ml	£4.99 50ml, 3 for £13.99	Photo 790, 870, 890, 895, 915
T009 Colour	£29.99 66ml	£4.99 70ml, 3 for £13.99	Photo 900, 1270, 1290
T026 Black	£39.99 16ml	£3.99 20ml, 3 for £10.99	Photo 810, 830 ,830u, 925, 935
T027 Colour	£29.99 46ml	£4.99 50ml, 3 for £13.99	
T040 Black	£44.99 17ml	£3.99 20ml, 3 for £10.99	C62, CX3200
T041 Colour	£39.99 37ml	£4.99 46ml, 3 for £13.99	
T050 Black	£32.99 15ml	£2.99 16ml, 3 for £7.99	440, 640, 660 Photo 700, 1200
T051 Black	£36.99 24ml	£2.99 26ml, 3 for £7.99	740, 760, 800, 850, 860, 1160
T052 Colour	£36.99 35ml	£3.99 39ml, 3 for £10.99	440, 640, 660, 740, 760, 1160
T053 Colour	£26.99 43ml	£3.99 48ml, 3 for £10.99	Photo 700, 750
T0441-4 Set of 4	£44.99	£14.99, 3 sets for £42.99	C64, C66, C84, C86,
T0441 Black	£19.99 13ml	£4.99 13ml, 3 for £13.99	CX3600/3650, CX6400, 6600
T0452-4 each	£9.99 8ml	£3.99 13ml, 3 for £10.99	
T0481-6 Set of 6	£69.99	£19.99, 3 sets for £57.99	R200, R220, R300, R320, R340
T0481-6 each	£15.99 13ml	£3.99 13ml, 3 for £10.99	RX500, RX600, RX620, RX640
T0540-9 Set of 8	£109.99	£35.99, 3 sets for £99.99	Photo R800, R1800
T0540 Gloss	£8.99 13ml	£3.99 21ml, 3 for £13.99	
T0541-9 each	£14.99 13ml	£4.99 21ml, 3 for £13.99	
T0551-4 Set of 4	£34.99	£14.99, 3 sets for £42.99	Photo R240, R245
T0551 Black	£8.99 8ml	£4.99 8ml, 3 for £10.99	RX420, RX425, RX520, RX525
T0552-4 each	£8.99 8ml	£3.99 8ml, 3 for £10.99	
T0591-9 Set of 8	£99.99	Check Website.	Photo R2400
T0591-9 each	£12.99 13ml	Check Website.	
T0611-4 Set of 4	£34.99	£14.99, 3 sets for £42.99	D68, D88
T0611 Black	£8.99 8ml	£4.99 8ml, 3 for £13.99	DX3800/3850, DX4200/4250
T0612-4 each	£8.99 8ml	£3.99 8ml, 3 for £10.99	DX4800/4850
T0711-4 Set of 4	£34.99	£14.99, 3 sets for £42.99	S20/21, SX100/105/115/200/205/215
T0711 Black	£8.99 7.4ml	£4.99 7.4ml, 3 for £13.99	SX400/405/415/515, D78/92/120
T0711-4 each	£8.99 5.5ml	£3.99 7.4ml, 3 for £10.99	DX4000/4400/5000/6000/7400/8400
T0791-6 Set of 6	£74.99	Check Website.	Photo 1400
T0791-6 each	£12.99 10ml	Check Website.	
T0801-6 Set of 6	£51.99	£19.99, 3 sets for £57.99	P50, R265/285/360, RX560/585
T0801-6 each	£8.99 7.4ml	£3.99 7.4ml, 3 for £10.99	/685/650, PX700/710/800/810
T0870-9 Set of 8	£74.99	Check Website.	Photo R1900
T0870 Gloss	£7.99 11.4ml	Check Website.	
T0871-9 each	£9.99 11.4ml	Check Website.	
T0961-9 Set of 8	£74.99	Check Website.	Photo R2880
T0961-9 each	£9.99 11.4ml	Check Website.	
T1281-4 Set of 4	£29.99	£14.99	S22, SX125, SX130, SX235W,
T1281 Black	£7.99 5.9ml	£4.99 5.9ml	SX420W/425W/435W/445W,
T1282-4 each	£7.99 3.5ml	£3.99 3.5ml	BX305F
T1291-4 Set of 4	£42.99	£16.99	SX235W/420W/425W/435W/445W,
T1291 Black	£10.99 11ml	£5.49 11ml	SX525WD/535WD/620FW, B42WD,
T1292-4 each	£10.99 7ml	£4.49 7ml	BX305F/320FW/525WD/625FWD
T1571-9 each	£20.99 25ml	Check Website.	R3000
T1591-9 each	£14.99 17ml	Check Website.	R2000
T5801-9 each	£41.99 80ml	Check Website.	Pro 3800, 3880
No.16 Set of 4	£24.99	£14.99	Workforce WF-2010W, 2510WF,
No.16 Black	£6.99 5.4ml	£4.99 5.4ml	2520NF, 2530WF, 2540WF
No.16 C/M/Y, each	£5.99 3.1ml	£3.99 3.1ml	
No.18 Set of 4	£22.99	£14.99	Expression Home XP30,
No.18 Black	£6.99 5.2ml	£4.99 5.2ml	XP102, 202, 205
No.18 C/M/Y, each	£5.99 3.3ml	£3.99 3.3ml	XP302, 305, 402, 405
No.24 Set of 6	£44.99	**No.24XL** Set of 6 £69.99	Expression Photo XP750, 850
No.24 B/LC/LM, ea	£7.99 5.1ml	**No.24XL** B/LC/LM, ea £11.99 9.8ml	
No.24 C/M/Y, each	£7.99 4.6ml	**No.24XL** C/M/Y, each £11.99 8.7ml	
No.26 Set of 4	£30.99	**No.26XL** Set of 4 £54.99	Expression Premium XP600, 605, XP700, 800
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No.26 Photo Black	£7.99 4.7ml	**No.26XL** Photo Black £13.99 8.7ml	
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7	plusnet	Plusnet: Fibre Broadband & Calls	£14.99 (£3.99 for 6 months)	18 months	38Mbps max speed	∞ unlimited	£113.88
8	EE	EE: Fibre Broadband & Calls	£19.95 (£9.95 for 6 months)	18 months	38Mbps max speed	∞ unlimited	£179.40
9	sky	Sky: Fibre Broadband & Calls	£20.00 (HALF PRICE for 6 months)	18 months	38Mbps max speed	∞ unlimited	£180.00
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Jargon Buster

1080p Of the common types of high-definition video, this is the best quality: 1920x1080 pixels.

4G A set of technologies that delivers faster mobile broadband, so called because it is the fourth generation of mobile data networking standards.

4K Video with a resolution of at least 3840x2160 pixels.

32bit A measure of how much data a computer can process at once. Most older computers are 32bit.

64bit A technology that processes information in larger chunks. Most modern computers are 64bit.

802.11ac A standard for wireless networks that allows for much higher transfer speeds than 802.11n.

Add-on See Extension.

AMOLED Active-Matrix Organic Light-Emitting Diode. An alternative technology to LCD for creating flat-panel displays.

Aperture An opening that controls the amount of light entering a camera lens.

Beta A version of software that's being tested. Beta versions are often released so problems can be ironed out.

Biometrics Using measurable personal characteristics, such as fingerprints, for identification.

Cache A temporary space for storing information.

Calibrate Checking and adjusting a piece of equipment.

Command line A way to control a computer by typing instructions one at a time. In Windows this is called the command prompt.

CPU Central Processing Unit. Another term for a PC processor.

CSC Compact system cameras. A camera that uses interchangeable lenses, but doesn't have a viewfinder that uses a mirror. Offers many of the benefits of a DSLR without the size and cost.

DDR2 A type of PC memory, newer than DDR, but has since been superseded by DDR3 and DDR4.

DirectX 9 A Microsoft technology required to run many games in Windows.

DisplayPort A new socket for connecting monitors that's still relatively rare.

DLL Dynamic Link Library. DLL resources can be made use of by one or more Windows programs.

dpi Dots per inch. A measure of printed image quality, or the size an object will be shown on screen.

Driver A file that tells Windows how to work with a peripheral device.

DRM Digital Rights Management. Software that limits the copying of a file.

DSLR Digital single lens reflex. A digital camera that uses a moving mirror so its viewfinder looks out through the lens.

Dual boot To set up a PC with two operating systems, so that one must be chosen each time it starts.

Dual core When two processors are combined into a single chip.

Eight-core A standard processor has one core, but most modern processors are dual-, quad- or even eight-core, making them faster.

Exposure The amount of light collected by a camera's sensor.

Extension A program that adds extra features to your browser.

Feedback The tactile response that the keys on a keyboard give when they've been pressed.

HDMI High-definition media interface. A type of connection that transmits high-definition video and audio signals.

HDR High-dynamic range. A camera that takes more than one photo with different levels of colour and contrast.

HTML5 The latest version of the Hypertext Markup Language used to create most web pages. HTML5 includes extra commands that allow for more complex designs.

Megapixel A measure of the amount of detail that can be recorded by a digital image.

Metadata A set of data that gives information about a file.

MicroSD A small type of memory card. Can be converted to SD size using an adapter.

MicroSIM A smaller version of SIM cards used in mobile phones. Commonly found in smartphones.

mSATA A smaller version of the SATA interface used for connecting SSDs in laptops and some PCs.

Noise Visible dust-like speckles that appear in some camera and TV images.

Open source Software that can be modified by anyone, rather than just by the employees of the company that created it.

Partition A large hard drive can be split into two or more partitions or 'virtual' drives.

Plug-in A small program that adds extra features to your web browser or to other applications, and is loaded only when it's needed.

Processor The processor – or central processing unit – is the brain of a computer. Processors now are tiny and are capable of carrying out millions of calculations every second.

PUP Potentially Unwanted Program. A program that may not be desired, despite the user consenting to it being downloaded.

RAM Random-access memory. The computer's working area, used for data storage while the PC is switched on.

RAW A format for digital photos that stores the image exactly as the camera captured it, without compression or optimisation, but which is not compatible with all image editors.

Resolution The amount of detail shown in an image, whether on screen or printed.

Script (macro) An automated series of commands or options that can be run at any time. Handy if you often need to perform repetitive actions.

SD card Secure Digital card. A popular type of memory card.

Sensor The part of the camera that captures each image. Similar to a piece of film on a film camera.

Server A computer on a network, such as the internet, that distributes information to other PCs.

SIM Subscriber Identity Module. The smart card used by all digital mobile phones.

SSD Solid-state drive. Storage that, unlike a hard drive, uses no moving parts. Faster but more expensive than conventional hard drives.

System Restore Point The collection of system files stored by System Restore on a given date and time to which Windows can revert if a problem occurs.

Travel The distance the keys of a keyboard have to be pressed before the keystroke is recognised.

USB 2.0 Faster successor to USB that's used by devices such as external hard drives.

USB 3.0 A faster version of the USB standard used to connect devices to a computer.

Vesa Video Electronics Standards Association. A standard mount for attaching monitors on to stands and walls and for mounting mini PCs on the back of monitors

Virtual PC A Windows tool that enables you to run a second 'virtual' operating system on a PC, such as running a version of XP in a Windows 7 computer to use older programs.

Volume An alternative term for drive or disk.

Wiki site A collaborative website that users can easily edit.

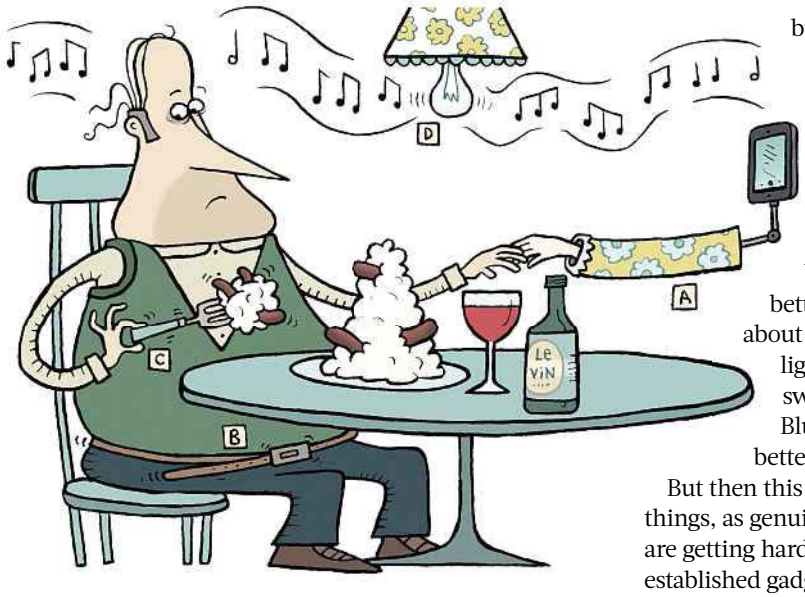
Bust more jargon on our Back Issue CD: www.snipca.com/14981

The Final Straw

STUART ANDREWS is *Computeractive*'s Mr Angry

In this issue Stuart Andrews won't be buying any...

Stupid tech gimmicks



Last week I came across the Selfie Arm (pictured A in the cartoon): a fibreglass arm that holds your smartphone when you're taking selfies, so that you can get a wider shot with a bit more distance while looking like you're holding on to a loved one's hand. It really does exist (check here, if you don't believe me: www.snipca.com/16520).

I'll admit that my first response was one of horror. Wasn't the selfie stick bad enough? Then just as I was about to rant about it on Twitter as a sign that our high-tech culture had reached its absolute nadir, I discovered that the selfie arm wasn't to be taken at face value.

> "Who needs a high-tech gizmo just to keep their trousers up?"

Apparently, it's the work of two US artists, Aric Snee and Justin Crowe, who meant it as "the sarcastic solution to a quintessential problem – nobody wants to look alone while they mindlessly snap pictures of themselves". In short, it's smart, arty satire – a joke on our tech-obsessed society, and the brain-dead narcissism that's taken it over. I shut Twitter down with a sigh of relief.

Yet, the worrying thing about the Selfie Arm is that it's so believable. It's something that I can imagine some daft company making and some equally daft people buying. It's certainly no worse than many other products that are being made and sold for real.

Is it, for example, any sillier than the Belty (B), which adjusts itself automatically so as not to squeeze your tubby waistline when you sit? Sure, the Belty also tracks your girth and measures your activity, but who needs a high-tech gizmo just to keep their trousers up?

And is it any dumber than the Hapifork (C)? This was the "revolutionary" fork that flashed and vibrated if you tried to eat too fast. Now, I don't know about you, but eating too fast has never troubled me. I've never once felt the need for a device to monitor my eating speed, or seen anyone injured by a failure to munch at a moderate pace. I guess you might single out the souls who choke in restaurants, but is a fork really necessary to stop them wolfing down their filet mignon without chewing?

How about Sony's latest LED light bulb? In Japan, £130 buys you a smart light bulb with a tiny Bluetooth speaker built in (D). Now, I guess it's discrete, and you can dim the light with a phone app, but with a single 30mm speaker and 2W of power, it's hardly kitted out to produce a decent noise. Yet is there really anything better or more convenient about this than using a standard light bulb with a dimmer switch, and a separate Bluetooth speaker with a better sound?

But then this seems to be the way of things, as genuinely useful innovations are getting hard to find. Look at more established gadgets and it's clear that the markets are growing saturated, and that manufacturers are getting desperate. That's why we're seeing screens with such high-resolutions that our eyes can't tell the difference. That's why we're getting a plethora of talking, shaking, eye-tracking, gesture-recognising smartphone shortcuts that don't do anything you can't do with a button or swipe. We're getting cameras with built-in selfie screens and TVs with gesture controls, not to mention remote controls so over-elaborate that they should be launching space missions, not flicking between *Pointless* and *Vintage Antiques Roadshow* on a Tuesday afternoon.

It seems to me that technology serves us best when it takes a good, hard look at what we want or need to do, then gives us a better way of doing it. Sadly, desperate manufacturers seem to think of things the technology could do, then try to persuade us that this is something we actually want to do. Wouldn't a really smart company do things the other way around?

Which gimmicks do you hate? Let us know at letters@computeractive.co.uk

Next issue Stuart tells childish hackers to grow up

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